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

PATENTMARKS COMMUNICATIONS, LLC,	)	
Plaintiff,	)	
	)	C.A. No. 2:16-cv-171
v.	)	
	)	**JURY TRIAL DEMANDED**
INTERNAP CORPORATION,	)	
Defendant.	)	

COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement in which Plaintiff PatentMarks Communications, LLC ("PMC") makes the following allegations against Internap Corporation ("Internap"):

PARTIES

1. PMC is a Delaware limited liability company with a registered address of 2140 S. Dupont Highway, Camden, Delaware 19934.

2. On information and belief, Internap Corporation ("Internap") is a Delaware corporation with its principal place of business at One Ravinia Drive, Suite 1300, Atlanta, Georgia. Internap has appointed Registered Agent Solutions, Inc., located at 1701 Directors Blvd., Suite 300, Austin, TX 78744 as its agent for service of process.

JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, 35 U.S.C. § 1, *et seq.*, including § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

4. This Court has personal jurisdiction over Internap because, among other reasons, Internap has done business in this District, has offices, personnel, equipment, and clients in this District, has committed and continues to commit acts of patent infringement in this District, and has harmed and continues to harm PMC in this District, by, among other things, using, selling, offering for sale, and importing infringing products and services in this District. On information and belief, Internap has offices, personnel, and equipment in this district located at its Data Center at 1221 Coit Road, Plano, Texas, 75075.

5. Venue is proper in this District under 28 U.S.C. §§ 1391(b)-(c) and 1400(b) because, among other reasons, Internap is subject to personal jurisdiction in this District, and has committed and continues to commit acts of patent infringement in this District. On information and belief, for example, Internap has used, sold, offered for sale, and imported infringing products in this District, and has offices, personnel, and equipment in this district located at its Data Center at 1221 Coit Road, Plano, Texas, 75075.

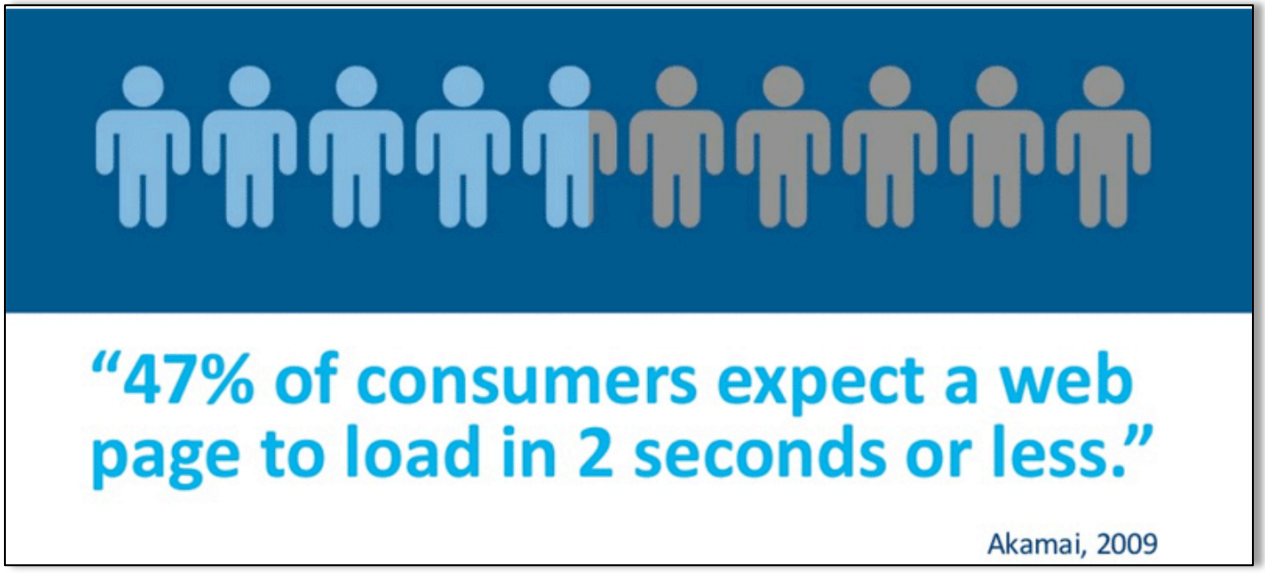
BACKGROUND

6. The competition to be the quickest is fierce. As reported in the New York Times, speed matters in every context of computer and network communications. People will visit a web site less often if it is slower than a close competitor by a mere 250 milliseconds, less than the blink of an eye. Lohr, Steve, *For Impatient Web Users, an Eye Blink Is Just Too Long to Wait*, The New York Times, Feb. 29, 2012.

7. In lab test after lab test, going back as far as Robert B. Miller's 1968 paper "Response Time in Man-Computer Conversational Transactions," studies have found that people are most comfortable, most efficient, and most productive with response times of less than two seconds.

8. With the astronomical growth of network communications, ecommerce, and the digital economy in general, speed of network communications is critical and is now widely recognized as a competitive advantage. According to a paper published by researchers at Google Inc. and the University of Southern California, "user-perceived Web performance is now *the* primary metric for modern network services. Since bandwidth remains relatively cheap, Web latency is now the main impediment to improving user perceived performance." T. Flach, *et al.*, Reducing Web Latency: the Virtue of Gentle Aggression, SIGCOMM'13, ACM, Aug. 2013.

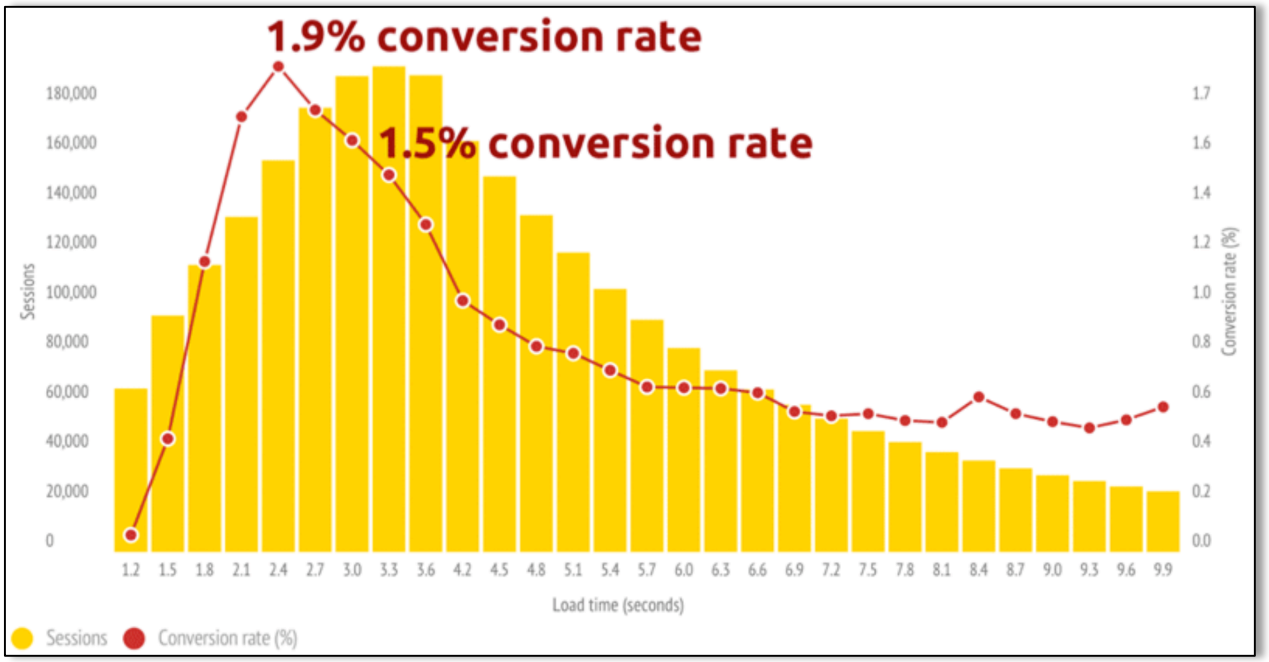
9. The time it takes to load a webpage is one of the greatest factors in determining an individual's satisfaction with a web site. Almost half of all online shoppers say they will abandon a site that takes more than two seconds to load. For thirty-five percent of users, slow load times result in negative perceptions of the entity associated with the website, and twenty-two percent of users say they will never return to the slow site.

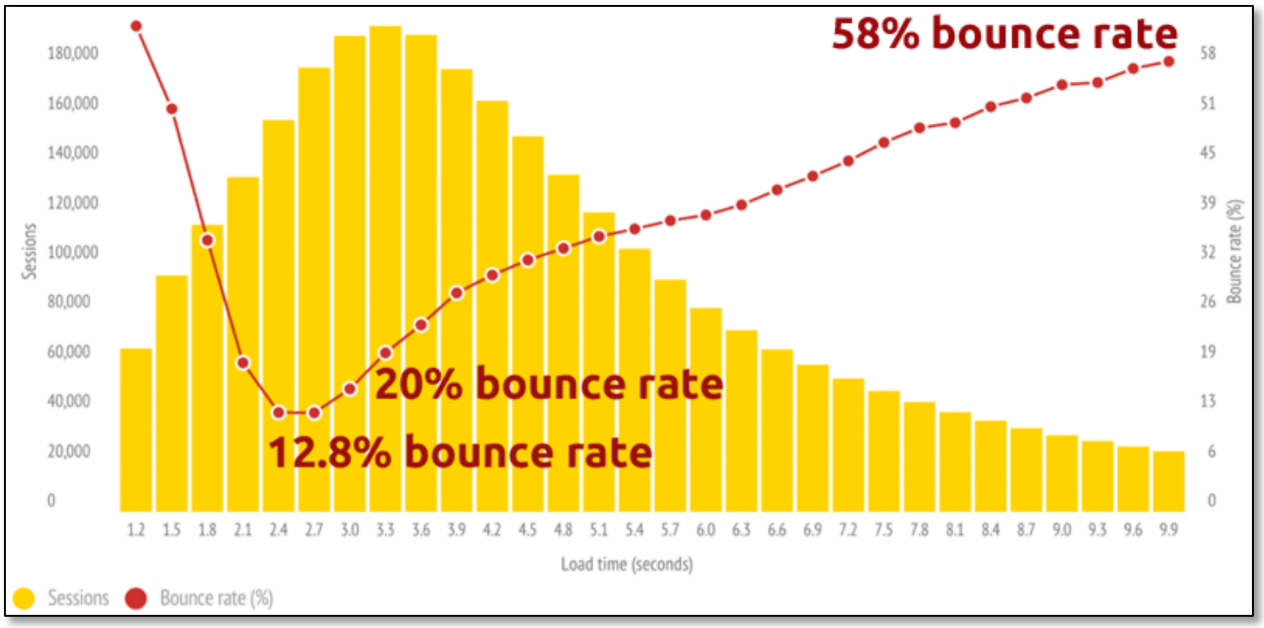


10. Studies of mobile computing yield similar results. Seventy-four percent of users say that five seconds is the maximum amount of time they'll wait before abandoning a site.

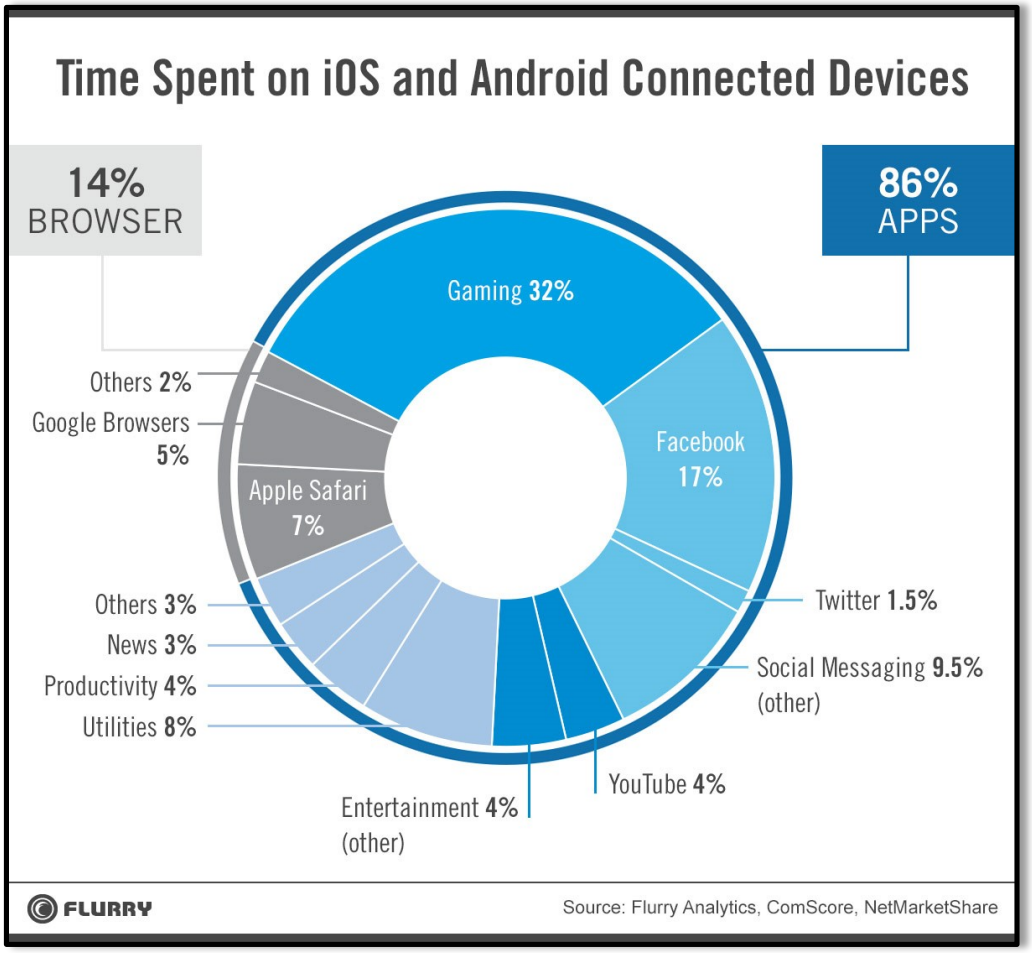
When those disappointed users leave the site, most say a competing site is their next stop. And forty-six percent say they will never return to the slow site.

11. Research published in September 2015 concerning mobile computing reveals an even more drastic relationship between load time and conversions and bounce rates (the percentage of visitors who enter the site and then leave rather than continuing on to view other pages within the same site). Webpages that were just one second faster, for instance, experienced a twenty-seven percent conversion rate increase, while pages that were just one second slower experienced a fifty-six percent increase in bounce rate:

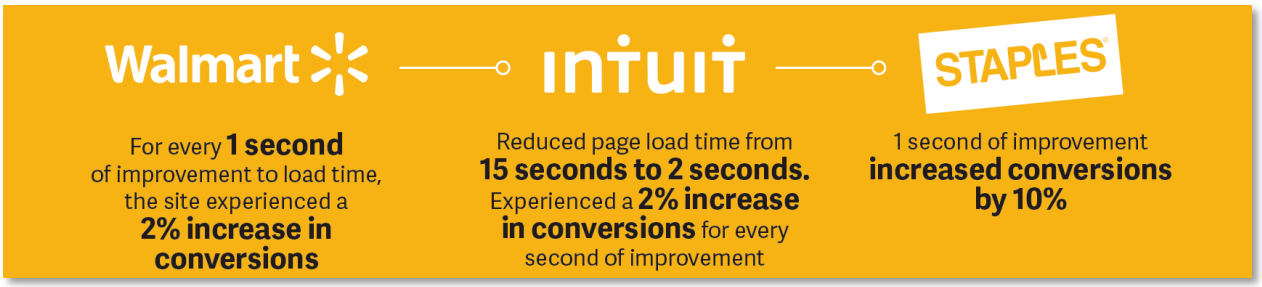




12. Network latency has a particularly acute effect in the context of mobile gaming, which is the most popular mobile activity, accounting for nearly a third of the time spent on mobile devices. Real-time interactivity in the gaming context requires client displays to quickly reflect client input events. User studies have shown that players are sensitive to as little as sixty milliseconds of latency, and are aggravated by latencies in excess of 100 milliseconds. A further delay degradation from 150 milliseconds to 250 milliseconds lowers user engagement by seventy-five percent. K. Lee, *et al.*, *Outatime: Using Speculation to Enable Low-Latency Continuous Interaction for Mobile Cloud Gaming*, MobiSys'15, ACM, May 2015ACM.



13. It is also widely accepted that Web latency inversely correlates with revenue and profit. Amazon.com estimates that every 100-millisecond increase in latency cuts profits by one percent. T. Flach, *et al.*, Reducing Web Latency: the Virtue of Gentle Aggression, SIGCOMM'13, ACM, Aug. 2013. Similarly, for every 100 milliseconds of improvement, Walmart.com grew incremental revenue by up to one percent, and for every one second of improvement to load time, Walmart.com experienced a two percent increase in conversions. For Intuit, reducing page load times from fifteen seconds to two seconds resulted in a two percent increase in conversions for every second of improvement. And for Staples.com, a one second of improvement in the median load time for its home page, improved the site's conversion rate by roughly ten percent.



14. Demands on network communications and the need to optimize such communications show no signs of diminishing. Web pages are bigger and more complex than ever. In 1996, the average web page was just 14.1 KB and contained only 2.3 objects. By 2015, the average page was 2,161 KB, and contained 108 objects, more than 60% of which were images. At the current rate of growth, the average web page could reach 3 MB by 2017.

15. Widespread adoption of mobile Internet devices combined with rising expectations for the performance and availability of both consumer and business applications places increasing pressure on enterprises to deliver a seamless end-user experience on any device, at any time, and at any location. There is a need for Internet infrastructure services that make applications faster and more scalable, and that maximize uptime and minimize latency for customer applications.

16. The real growth in bandwidth-intensive Web content, rich media, and Web- and IP-based applications is just beginning. The challenges presented by this growth are many: as businesses move more of their critical functions online, and as consumer entertainment (games, movies, sports) shifts to the Internet from other broadcast media, the stresses placed on the network infrastructure will become increasingly apparent and detrimental. T. Leighton, *Improving Performance on the Internet,* Communications of the ACM, Feb. 2009.

17. In response to these demands, enterprises have made and are continuing to make major structural changes to their service delivery infrastructure. These changes include, for

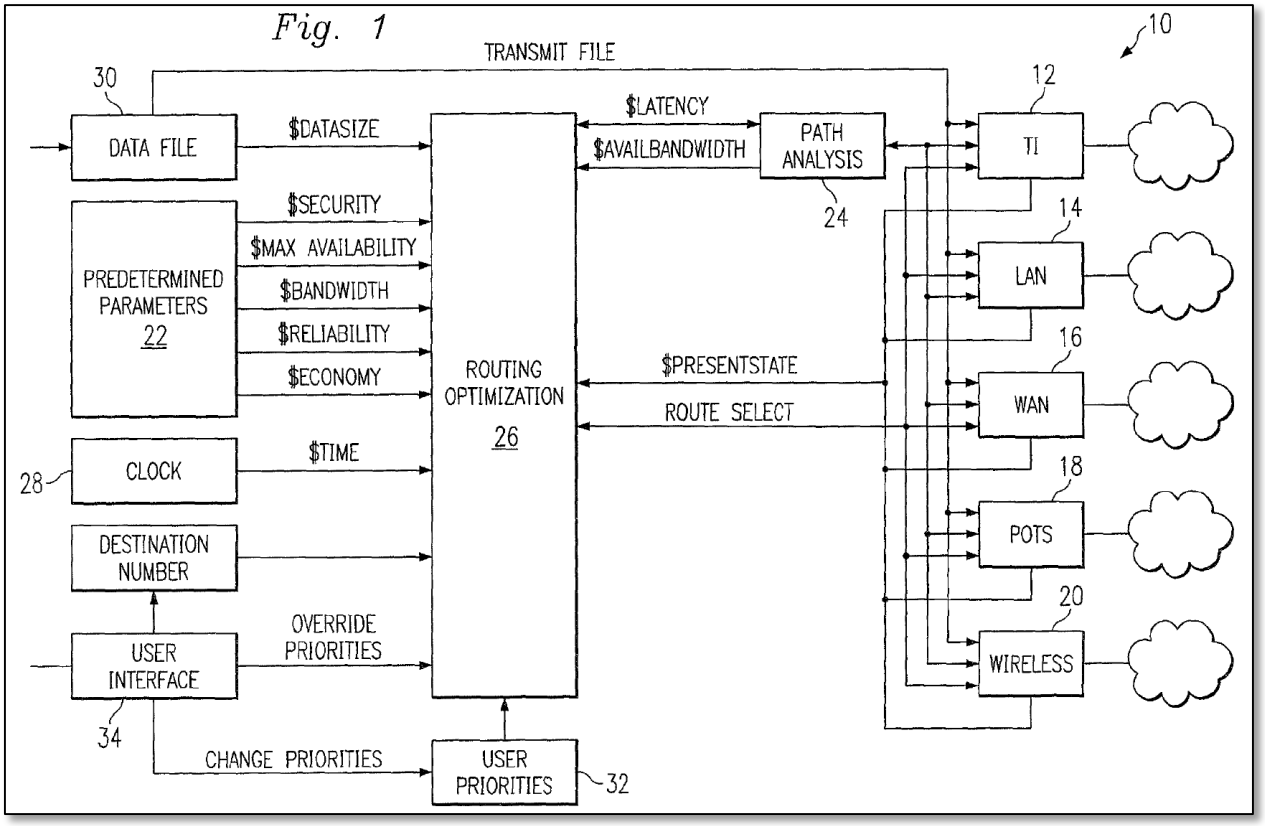
example, careful reengineering of routing, DNS redirection, and backbone and point of presence expansions to achieve proximity to clients. These changes enable enterprises to ensure that clients quickly reach the nearest ingress point, thereby minimizing the extent to which the client traffic traverses the public Internet. Further improvements to latency include engineering the capacity of, and traffic over, internal backbones, and the use of multi-stage connections to isolate internal access latency from the vagaries of the public Internet. Using persistent connections and request pipelining further reduces latency. *See* T. Flach, *et al.*, Reducing Web Latency: the Virtue of Gentle Aggression, SIGCOMM'13, ACM, Aug. 2013.

18. Various other optimization techniques have been implemented to improve network performance. For instance, "a network that uses persistent connections and optimizes parameters for efficiency (given knowledge of current network conditions) can significantly improve performance by reducing the number of round-trips needed to deliver … data." T. Leighton, *Improving Performance on the Internet,* Communications of the ACM, Feb. 2009. And by "leveraging a highly distributed network – one that offers potential intermediary servers on many different networks – [enterprises] can actually speed up [certain] communications by 30% to 50% or more, by using routes that are faster and much less congested. [Enterprises] can also achieve much greater communications reliability by finding alternate routes when the default routes break." *Id.*

THE PATENTMARKS' PATENTS: MULTI-PROTOCOL COMMUNICATIONS ROUTING OPTIMIZATION

19. The PMC patents disclose technology that optimizes network communications. The patents describe multi-protocol routing optimization techniques that utilize predetermined and measured parameters in accordance with user priorities to determine and select a

communications path to transmit data to a remote destination. Figure 1 from U.S. Patent No. 9,036,499 is a functional block diagram of the disclosed multi-protocol routing optimization:



20. The PMC patents describe dynamically selecting an optimal telecommunications path from any number of paths based on an analysis of static and dynamically changing variable and user priorities. The optimization of routing selection can take into consideration the lowest cost path, transmission bandwidth, path availability, security, reliability, latency, the available media or data to be transmitted, user priorities, etc. Static parameters may include, for example, those listed in Table A, below:

TABLE A

$maxbandwidth(i)	the maximum amount of bandwidth available for interface(i). For example, a 28.8 kbs modem would have a $maxbandwidth variable set to 28.8.
$reliability(i)	an indication of the reliability of interface(i) according to the following scale: 10 = non-reliable transfer (e.g. wireless) 50 = moderately reliable (e.g. modem) 75 = very reliable (e.g. T1, WAN) 100 = ultra reliable (e.g. Ethernet LAN)
$economy(i)	the currency expenditure of interface(i) for a period of time, normalized so that a high cost interface yields a low measure of economy: $economy(i) = 100 – cost/minute
$availability(i)	the availability of interface(i) to a particular user. Not all users of the system will have access to each interface; e.g. in a shared PBX environment only certain subscribers may have access to the T1 interface. $availability = 0 Not available $availability = 1 Available
$security(i)	an indication of the relative data security of the path, which may example be a function of the number of bits in an encryption key (e.g. 1024)

Variable parameters may include, for example, those listed in Table B, below:

TABLE B

$presentstate(i)	the present state of interface(i), indicating if the telecommunications path is presently operational. $presentstate = 0 Not operational $presentstate = 1 Operational
$avgstate(i)	average of $presentstate(i) over prior five minute window
$datasize(i)	the size in KB of the data file to be transmitted.
$latency(i)	measure in msec of delay through path(i). This is based on a real-time test on the interface such as by a so-called ping to the remote host.
$time	time of day/day of week; this is the same for all interfaces.
$availbandwidth(i)	available bandwidth of interface (i) at a given time of file transfer

21. The PMC patents consist of a family of seven U.S. patents, one pending U.S. patent application and three foreign patents and applications. The U.S. patents consist of Patent Nos. 6,016,307; 6,144,641; 6,456,594; 6,473,404; 7,307,956; 8,400,926; and 9,036,499, all of which are entitled either Multi-Protocol Telecommunications Routing Optimization, or Multi-Protocol Communications Routing Optimization (collectively, excluding the '956 patent, the "Asserted PMC Patents"). True and correct copies of the Asserted PMC Patents are attached as Exhibits A-F.

22. The following are two examples of claims from the Asserted PMC Patents:

'307 patent, claim 1:

> 1. In a telecommunications switching system comprising a plurality of interfaces, each of said interfaces interconnected with an associated telecommunications path capable of transferring a data file from a first memory to a remote destination, each of said telecommunications paths having predetermined parameters associated therewith stored in a second memory in said switching system and variable parameters associated therewith, a method of determining which of said plurality of telecommunications paths should be utilized for transferring the data file from said first memory, said method comprising the steps of:
>
> a) analyzing a property of the data file to be transferred;
>
> b) measuring said variable parameters for each of said paths;
>
> c) analyzing said measured variable parameters and said predetermined parameters; and
>
> d) determining which of said paths provides an optimal set of characteristics for transferring the file to the remote destination in accordance with said analyzed variable parameters and predetermined parameters and said analyzed data file property.

'499 patent, claim 19:

> 19. A telecommunications switching system comprising:
>
> a plurality of interfaces, each of said interfaces interconnected with an associated telecommunications path capable of transferring a data file to a remote destination;
>
> a predetermined parameter associated with each associated telecommunications path stored in memory; and

> a processor capable of determining which associated telecommunications path should be utilized for transferring the data file to the remote destination by taking into account the associated predetermined parameter and a variable parameter associated with the telecommunications path measured by the processor.

23. The PMC patents have been cited as prior art during the prosecution of nearly 400 patent applications of other companies. Those companies, which had knowledge of one or more PMC patents and for which one or more PMC patents were considered relevant to their pending patent applications, included some of the most well-known technology companies, such as Comcast, VISA, Sony, HP, Dell, Cisco, Verizon, Level 3 Communications, Texas Instruments, Ericsson, AT&T, Avaya, Bosch, Intel, Fujitsu, IBM, Smith Micro, JDC Uniphase, Microsoft, Alcatel, Nokia, Siemens, NEC, Qualcomm, General Electric, Samsung, CenturyLink, and defendant Internap.

24. Several well-known technology companies have licensed the rights to the inventions of the PMC patents through multi-million dollar agreements that allow them to make, use and sell products and services in, for example, the routing, hosting, telecommunication and mobile markets. These companies validly secured such rights through licenses to the PMC patents, in contrast to the infringing activities of defendant Internap.

25. The PMC patents have withstood scrutiny by the U.S. Patent and Trademark Office (USPTO). The USPTO reviewed the applications of each of the PMC patents and issued the patented claims over 2,500 prior art references. During the prosecution of the PMC patents, the patentee overcame challenges based on definiteness (§112 ¶6), obviousness (§103), and anticipation (§102(b)). And the most recently issued PMC patent, the '499 patent, issued after the Supreme Court's decision in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, and was prosecuted

under the USPTO's post-*Alice* practice of reviewing every allowed application to ensure that the claims are patent eligible under §101.

26. The claims of the Asserted PMC Patents are not directed to a law of nature, a natural phenomenon, or an abstract idea. The claimed inventions include, for instance, inventions relating to software technology for analyzing data file properties, measuring variable parameters of communication paths, analyzing the variable and predetermined parameters, and determining the optimal path to transfer files to remote destinations. The inventions are directed towards improved communication switching systems that determine which of a plurality of paths provides an optimal set of characteristics for transferring data to a remote destination, where network paths are abundant, network resources are constrained, and network variables and user priorities are both static and dynamic. Such actions do not describe an abstract concept, or a concept similar to those found by the courts to be abstract, such as a fundamental economic practice, a method of organizing human activity, an idea itself (standing alone), or a mathematical relationship. In contrast, the inventions are directed towards, among other things, performing communication path and data file analysis to select a path that provides an optimal set of characteristics to transfer files to a remote destination, concepts inextricably tied to computer technology and distinct from the types of concepts found by the courts to be abstract.

27. The claims of the Asserted PMC Patents differ from other claims found by the courts to recite abstract ideas in that they do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solutions are necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of data transmission in an environment of

multiple networks, constrained network resources, and static and dynamic network variables and user priorities.

28. Claim elements, alone or in combination, of the Asserted PMC Patents are sufficient to ensure that the claims as a whole amount to significantly more than any judicial exception. Several claims, for instance, claim switching systems comprising switched and private virtual circuits, means for discarding data received by the switching system where the data does not match defined variable parameters, processors that analyze various static and dynamic parameters, including data transfer reliability, data transfer bandwidth, cost per unit time of utilizing a given path, and data transfer speed at a given time, and network interfaces using various protocols and standards, such as the V.92, MPEG, OSP, XML, and CAS. These elements, alone or in combination, add meaningful limitations to any possible abstract idea relevant to the patents, and add significantly more to any abstract idea than mere computer implementation.

29. The claimed inventions of the Asserted PMC Patents do not pose a risk of preempting any abstract idea. By way of example, defendant Internap's own website explains that routing decisions on the Internet are made by the Border Gateway Protocol, which is distinct and not preempted by Internap's infringing Managed Internet Route Optimizer ("MIRO" or the "MIRO Controller").

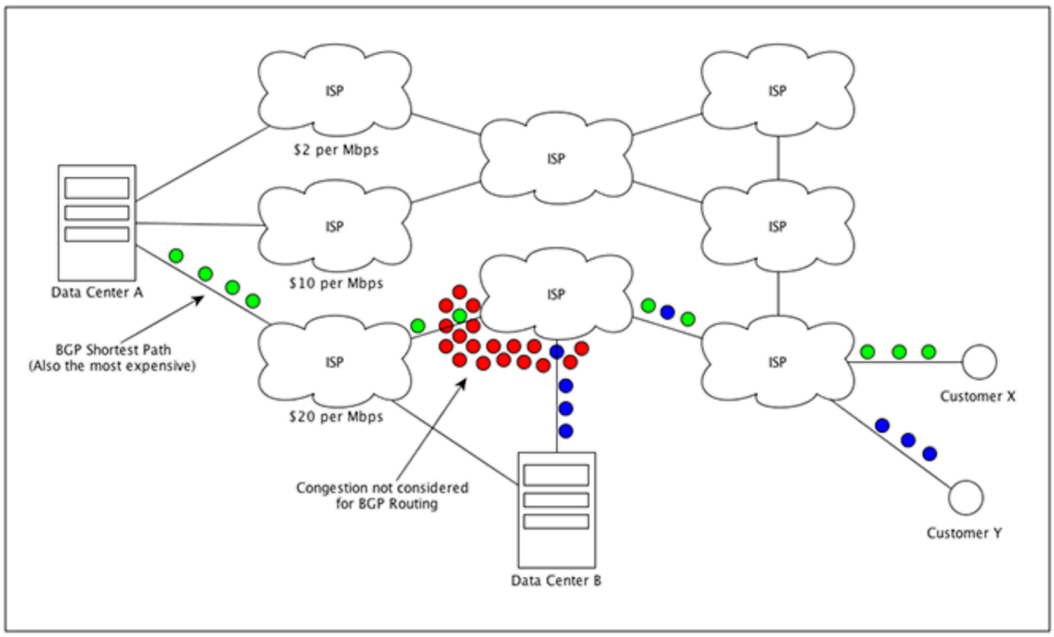
30. In particular, Internap's website discloses that "BGP guarantees that the traffic will go through the shortest path to reach its destination; however, it does not guarantee that the route is optimal in terms of performance (e.g., latency, loss, etc.) and/or costs," whereas Internap's MIRO "was specifically designed to overcome this problem by evaluating different

path characteristics to create performance metrics that are used to select the best routes for Internap customers":

INTERNAP® Cloud Bare Metal Managed Services Data Centers Network Services Solutions

Over the past decade, communication technologies have given rise to a wide range of online services for both individuals and organizations via the Internet and other interconnected networks. Network routing protocols play a critical role in these networks to effectively move traffic from any source to any destination.

The core routing decisions on the Internet are made by the Border Gateway Protocol (BGP) as specified in IETF RFC 4271, which uses routing tables to determine reachability among autonomous systems and make route selections. BGP guarantees that the traffic will go through the shortest path to reach its destination; however, it does not guarantee that the route is optimal in terms of performance (e.g. latency, loss, etc.) and/or costs as shown in the following figure.



Internap's Managed Internet Route Optimizer™ (MIRO) was specifically designed to overcome this problem by evaluating different path characteristics to create performance metrics that are used to select the best routes for Internap customers.

http://www.internap.com/2014/11/05/bgp-gets-smart-optimized-network-routing-protocols-miro/.

31. The PTO's notices of allowance of the PMC patents, such as the notice of allowance for PMC's '926 patent is additional evidence that the Asserted PMC Patents do not pose a risk of preempting any abstract idea. The patent examiner explained that: "The closest prior art, Higgins et al. (USP 5,953,350) discloses a system and method for determining an isochronous user information path to transfer video, voice and data to a remote destination in accordance with the bandwidth availability. However, Higgins fails to anticipate or render obvious the above quoted limitations. This renders it allowable." Application No. 11/948,746, 12/10/12 Notice of Allowance at 3. The examiner described the "quoted limitations" as, *inter alia,* "the unique method steps of: 'a) measuring said variable parameters for each of said paths; b) analyzing said measured variable parameters and said predetermined parameters; and c) determining which of said paths provides an optimal set of characteristics for transferring the file to the remote destination" in combination with other recited elements' in combination with other recited elements in claim 1." *Id.* at 2.

INTERNAP INFRINGES THE ASSERTED PMC PATENTS

32. Routing in computer telecommunications involves accepting data, making a decision on where to send the data, and forwarding the data to another device. Router products are made to run a set of protocols. Network engineers implement the type of protocol that is most appropriate to meet their design needs. Some protocols tolerate failures better than others, some use minimal amounts of bandwidth, while others scale to support a large number of devices across large areas. The telecommunications industry has accepted a standard set of protocols since interoperability between devices is critical. But there are built-in limitations to standard routing protocols.

33. A large-scale network that requires no downtime requires a system that can dynamically change the routing based on variable conditions, instead of relying solely on a standard routing protocol. For example, a large Internet service provider that runs Internet backbone links that serve thousands of customers experiences shifts in Internet traffic patterns. The predetermined parameters that are built into a standard routing protocol such as BGP typically cannot satisfy all the requirements for dynamically re-routing traffic based on load or failure conditions. Such organizations require systems that can predict traffic patterns, react quickly to changing usage patterns, and tolerate failures. An example of a product that provides such functionality is Internap's infringing MIRO Controller (and predecessor product, Flow Control Platform).

34. MIRO Controller is a "real-time route optimizer for multi-homed networks." www.internap.com/resources/miro-controller/.

35. MIRO Controller "analyzes, parses and prioritizes so that it can perform routing changes that make sure … customers' content reaches every destination optimally." www.internap.com/2012/08/03/the-brains-behind-intelligent-route-control/.

36. MIRO controller "evaluat[es] path characteristics such as latency, packet loss, traffic and route stability. MIRO controller lets you determine the most optimal routes based on cost and/or performance metrics …." www.internap.com/resources/miro-controller/.

37. MIRO controller is "an on-premise appliance that helps enterprises and service providers achieve performance level guarantees for their critical applications. MIRO controller continuously monitors multi-homed (or multi-carrier) networks for latency, packet loss, route stability and congestions and dynamically routes traffic over the fastest path."

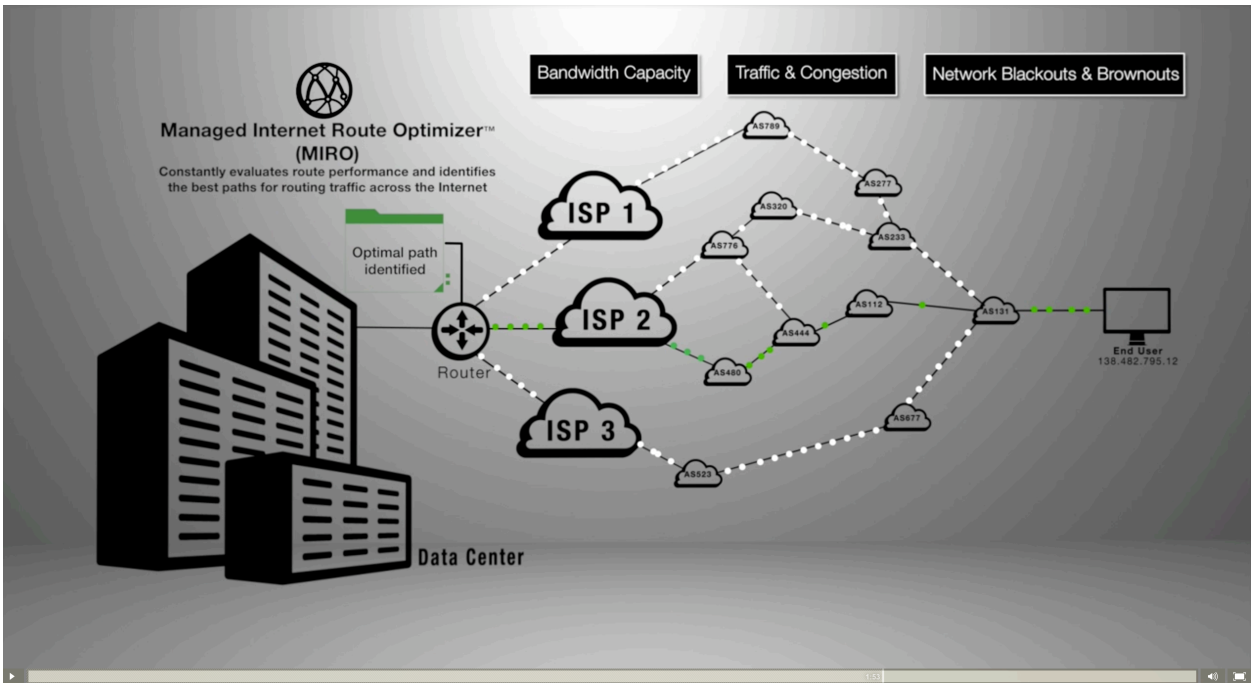
www.lightreading.com/ethernet-ip/routers/internap-automates-multi-homed-networking-/d/d-id/716375.

38. MIRO controller "enables organizations that are multi-homing their network traffic across two or more carriers to realize the full performance benefits of these networks by automatically rerouting traffic to minimize latency packet loss and congestion." *Id.*

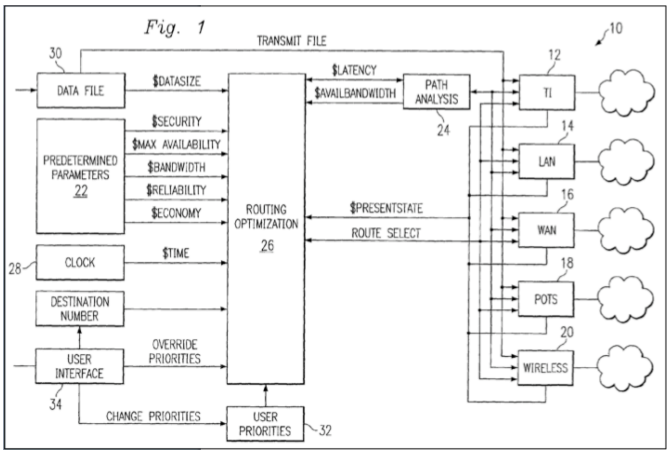
39. "MIRO Controller can also be leveraged to optimize costs by managing network capacity based on carrier bandwidth costs and commit levels. With automated, rules-based routing, organizations can customize MIRO Controller settings to deliver best performance or cost-efficiency or a combination of both, based on specific business and application requirements, and remove the need for network engineers to constantly make one-off manual routing adjustments." *Id.*

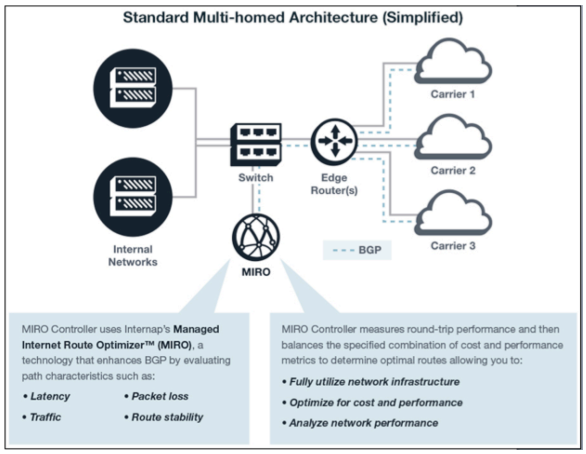
40. MIRO "constantly evaluates route performance and identifies the best path for routing traffic across the Internet." www.internap.com/2015/03/14/internet-latency-network-efficiency-miro/.

41. The image below illustrates an optimal path identified by MIRO. *Id.*



42. The MIRO Controller architecture maps to the block diagram of Figure 1 of the PMC patents (depicted in ¶19). In the MIRO image below, MIRO is equivalent to Routing Optimization 26. MIRO evaluates the plurality of paths associated with Carriers 1-3, which are equivalent to the plurality of paths 12, 14, 16, 18 and 20 of Figure 1. MIRO evaluates path characteristics such as latency, traffic, packet loss and route stability, and "analyze[s] network performance," which are equivalent to Path Analysis 24 and Figure 1's references to latency, availbandwidth, reliability, presentstate, etc. MIRO considers the "specified" combination of cost and performance metrics, which is equivalent to Predetermined Parameters 22 and User Priorities 32. And MIRO "determine[s] [the] optimal route," which is the result of Routing Optimization 26 and leads to Transmit File in Figure 1.





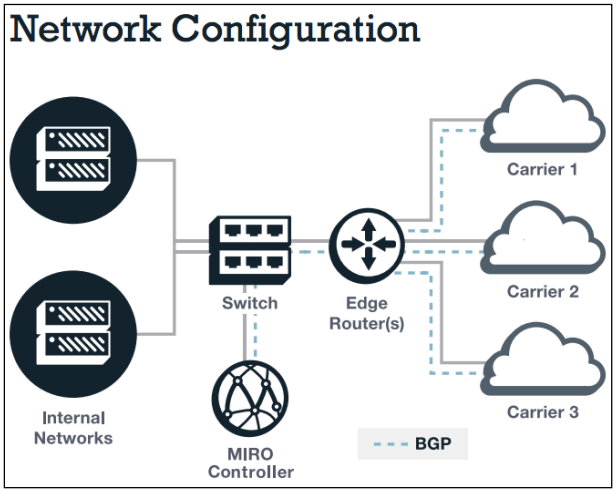
43. Additional detail with respect to limitations of the Asserted PMC Patents is provided below.

MIRO COMPRISES A "PLURALITY OF INTERFACES"

44. In a MIRO configured network, there are multiple interfaces for forwarding traffic.

45. "MIRO Controller is an intelligent route optimization appliance for multi-homed networks that enhances BGP by evaluating path characteristics such as latency, packet loss, traffic and route stability." www.internap.com/network-services/miro-controller/faqs/.

46. Multi-homed computers provide access to network resources over parallel paths. A multi-homed computer can have multiple network interfaces to connect the computer to two or more networks. In the sample network configuration below, there will be interfaces for each of Carriers 1-3.



www.internap.com/resources/miro-controller-data-sheet/.

47. Internap documentation discloses that "MIRO Controller … collect[s] information on the peering interfaces to immediately move … if there is any link problem (i.e., interface goes down)," and that it "get[s] traffic and status information on the interfaces connected to the providers." MIRO Controller Technical Guide at 2, 5.

48. The MIRO interfaces are consistent with how the term is used in the claims of the PMC patents:

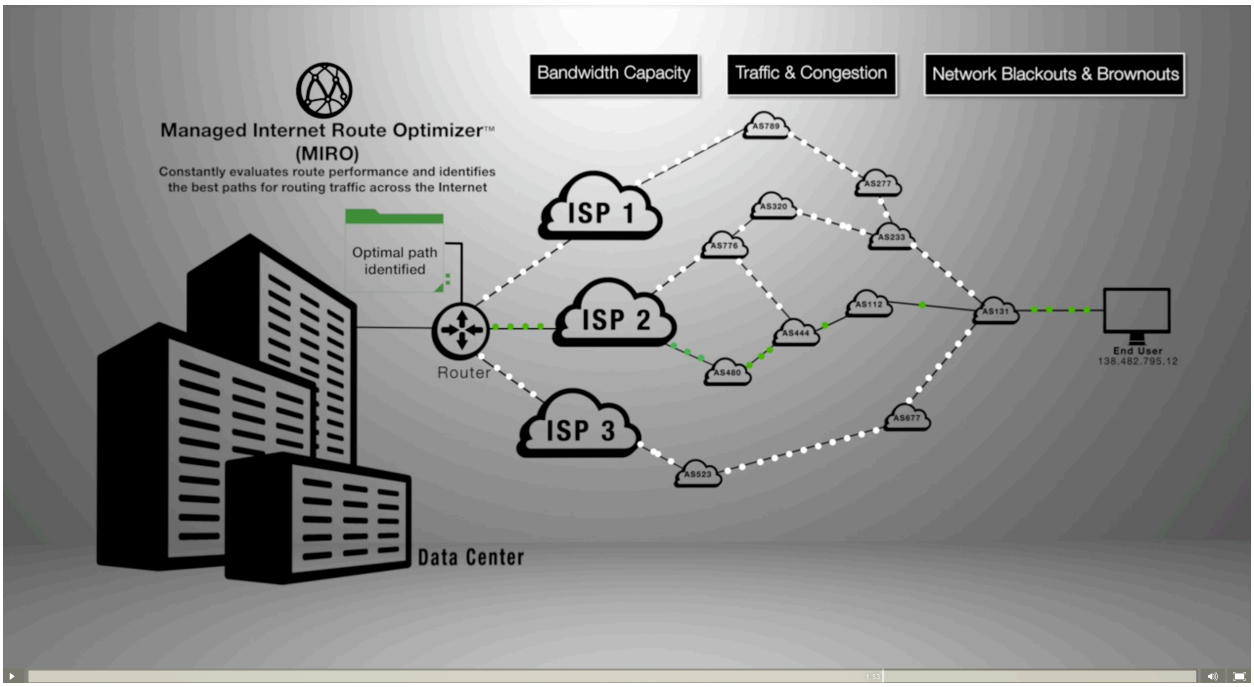
> "The switching system 10 is connected to various communications media in accordance with the user's resources. In particular, the switching system 10 may be configured to a high speed digital link via a T1 interface 12, to a local area network (LAN) via LAN interface 14, to a wide area network (WAN) via a WAN interface 16, to a local loop in a plain old telephone system (POTS) via POTS interface 18, and to a wireless communication network via 15; wireless interface 20. The interfaces 12, 14, 16, 18 and 20 are exemplary and are provided for the purposes of illustrating the preferred embodiment of the present invention."

'307 patent, 3:58-4:2.

MIRO COMPRISES PATHS ASSOCIATED WITH EACH INTERFACE

49. In a MIRO configured network, paths are associated with each interface.

50. In the image below, the paths are identified by the white dots, and the "optimal path" by green dots:



www.internap.com/2015/03/14/internet-latency-network-efficiency-miro/.

51. Internap documentation discloses that MIRO controller "evaluat[es] path characteristics," and each of those paths are associated with an interface. www.internap.com/network-services/miro-controller/faqs/.

52. Internap also describes "multi-homing" as "the process of connecting applications to multiple upstream ISPs," so that "if the connection from one provider is lost, traffic can be routed to a backup carrier(s) …." www.internap.com/2015/06/17/conquer-multi-homing-challenges/. Each of those connections to upstream ISPs is a path that can be used to route traffic. *See also* www2.internap.com/l/16412/2013-02-17/477tq/16412/35181/PerformanceIP_Datasheet.pdf ("We route traffic over redundant, high-speed connections and dynamically connect you to the best performing route across the Internet.").

MIRO COMPRISES "PREDETERMINED PARAMETERS"

53. The MIRO controller takes into consideration predetermined parameters.

54. "The Route Optimization Engine is the brains of the MIRO system. It consumes routes and provider information, traffic estimates, performance metrics, user rules and parameters, and runs a mathematical model to find the absolute best route for each destination." MIRO Controller Technical Guide at 3.

55. MIRO controller allows the establishment of "routing rules (e.g., static and restricted routes)," and "takes into consideration performance and costs while satisfying commitment constraints (e.g., bandwidth contracts)." *Id.* at 1; *see also* Flow Control Platform Product Data Sheet at 1 ("The FlowView Manager provides a rich set of configuration and management options …. It enables you to configure carrier connections, traffic profiles, policies, control parameters, prefix lists and many other FCP options.").

56. A predetermined parameter such as a bandwidth constraint contract is an expressly identified predetermined parameter in the PMC patents:

TABLE A

$maxbandwidth(i)	the maximum amount of bandwidth available for interface(i). For example, a 28.8 kbs modem would have a $maxbandwidth variable set to 28.8.

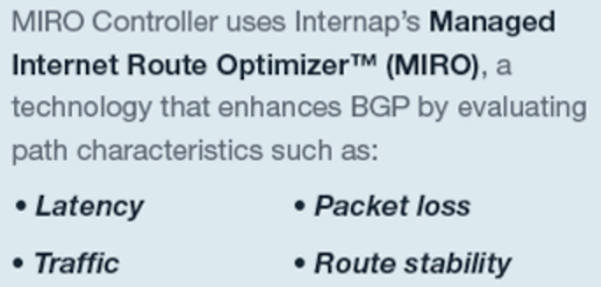
'307, 4:26-30.

57. "MIRO Controller gives you the tools you need to implement your own rules-based routing …." www.internap.com/resources/miro-controller-data-sheet/.

MIRO COMPRISES "VARIABLE PARAMETERS"

58. MIRO controller takes into consideration variable parameters.

59. "Performance metrics can be defined as a combination of one or more measurement variables such as latency, packet loss, jitter, etc." MIRO Controller Technical Guide at 2; *see also* figure below.



www.internap.com/internap/wp-content/uploads/2015/06/MIROC_PressRelease_Internap_7.jpeg.

60. Performance "values depend on availability as well as the raw latency and packet loss values and a weight that we can give to each of those variables." MIRO Controller Technical Guide at 4. Internap also describes MIRO controller as being able to consider "carrier cost variables." www.internap.com/resources/miro-controller-data-sheet/.

61. These disclosed variable parameters are consistent with the examples provided in the PMC '307 patent:

TABLE B

$presentstate(i)	the present state of interface(i), indicating if the telecommunications path is presently operational. $presentstate = 0 Not operational $presentstate = 1 Operational
$avgstate(i)	average of $presentstate(i) over prior five minute window
$datasize(i)	the size in KB of the data file to be transmitted.
$latency(i)	measure in msec of delay through path(i). This is based on a real-time test on the interface such as by a so-called ping to the remote host.
$time	time of day/day of week; this is the same for all interfaces.
$availbandwidth(i)	available bandwidth of interface (i) at a given time of file transfer

'307, 4:51-64.

MIRO COMPRISES MEASURING VARIABLE PARAMETERS

62. The MIRO controller measures variable parameters.

63. As shown above, variables such as "latency, packet loss, jitter, etc." are "measured variables." MIRO Controller Technical Guide at 2.

64. Internap also discloses that MIRO controller "measure[s] performance (currently latency and packet loss) using different techniques like pings and traces." *Id.* at 2; *see also* Flow Control Platform Product Data Sheet at 1 ("FCP uses real traffic to measure round-trip performance and then balances a combination of competing cost and performance metrics to determine optimal routes."); Flow Control Platform Product Data Sheet at 1 ("The Passive Flow Analyzer measures round-trip performance and bandwidth to active destination networks, while also identifying the networks through which traffic is sent, all in real time."); www.internap.com/internap/wpcontent/uploads/2015/06/MIROC_PressRelease_Internap_7.jpeg ("MIRO Controller measures round-trip performance and then balances the specified combination of cost and performance metrics to determine optimal routes ….").

65. Moreover, MIRO controller "dynamically evaluat[es] path characteristics including latency, packet loss and route stability to select the best route to any given destination, resulting in low latency, high availability and accelerated application performance." www.internap.com/network-services/miro/. In other words, MIRO controller provides "[r]eal-time route optimization …." www.internap.com/resources/miro-controller/ ("Delivers metrics and reports you can use to understand your network's state and implement changes in real time."); *see also* www.internap.com/resources/miro-controller-data-sheet/ ("Displays real-time visibility into carrier performance, including route, latency and hops"; "Probes active prefixes to provide real-time optimization").

66. MIRO controller's real-time evaluation of variable parameters is consistent with the disclosures of the '307 patent: "the present invention recognizes that the selection of the

optimal route for data transmission at a given time is a dynamic analysis that must be done in real-time …." '307, 2:10-13; *see also id.* at 4:10-21 ("the measurable parameters must be collected by path analysis block 24 from each interface in real-time at or about the time the date file is transferred").

MIRO ANALYZES THE PARAMETERS

67. MIRO controller analyzes the predetermined and variable parameters.

68. MIRO controller's "[a]dvanced analytics continuously adapt to changing network conditions so data reaches the end users faster and more consistently." www.internap.com/network-services/miro/.

69. As shown above, "[t]he Route Optimization Engine is the brains of the MIRO system. It consumes routes and provider information, traffic estimates, performance metrics, user rules and parameters, and runs a mathematical model to find the absolute best route for each destination." MIRO Controller Technical Guide at 3.

70. The MIRO controller "takes into consideration performance and costs while satisfying commitment constraints (e.g., bandwidth contracts)." *Id.* at 1; *see also* Flow Control Platform Product Data Sheet at 1 ("The Passive Flow Analyzer measures round-trip performance and bandwidth to active destination networks, while also identifying the networks through which traffic is sent, all in real time.").

MIRO DETERMINES THE [OPTIMAL] PATH FOR TRANSFERRING A FILE

71. The MIRO controller determines a path for transferring a file.

72. MIRO controller "measures round-trip performance and then balances the specified combination of cost and performance metrics to determine optimal routes …." www.internap.com/internap/wpcontent/uploads/2015/06/MIROC_PressRelease_Internap_7.jpeg;

see also www.internap.com/2015/03/14/internet-latency-network-efficiency-miro/ ("Consistently evaluates route performance and identifies the best paths for routing traffic across the internet."); Ex. B at 3 ("find the absolute best route for each destination").

73. After the optimal path is identified, MIRO controller's "Route Optimization Engine sends the selected route[] for the destination[] to the Route Injection subsystem, which makes sure the changes are applied." *Id.* at 4; *see also* Flow Control Platform Product Data Sheet at 1 ("The FlowDirector processor monitors and optimizes routes for your applications and ensures performance and carrier policies are met.").

INTERNAP INFRINGES MANY DEPENDENT CLAIMS OF THE ASSERTED PMC PATENTS

74. Numerous dependent claims of the Asserted PMC Patents are also met by MIRO. For instance, the disclosures above are also relevant to dependent claims concerning (a) "user priorities"; (b) "data transfer speed," "time," "reliability," and "cost" as parameters to consider; (c) "interface … availab[ility]"; (d) "weighted" analysis of parameters; and (e) specific data files/types.

INTERNAP'S KNOWLEDGE OF INFRINGEMENT

75. An assignee search of the PTO's database for Internap Network Services returns fifteen U.S. patents, all of which post-date the earliest priority date of the PMC patents. In a recent press release, Internap announced that its "MIRO technology [is] backed by more than 15 patents, that powers Internap's global terabit/second Performance IP™ transit service." www.lightreading.com/ethernet-ip/routers/internap-automates-multi-homed-networking-/d/d-id/716375.

76. Internap knew of at least the '307 PMC patent by no later than March 29, 2004.

77. During the prosecution of Internap's U.S. Patent No. 6,981,055 (the "'055 patent"), the PTO examiner rejected 49 claims as invalid in view of PMC's '307 patent in combination with another prior art reference. Specifically, the examiner's March 29, 2004, office action provided the following:

> 8. Claims 5-6, 8-14, 16-22, 24-30, 32-33, 39, 41-47, 49-55, 57-63 and 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mann et al in view of Kaplan et al.
>
> 9. Mann et al teachings are incorporated by reference from hereinabove in paragraph 7. Mann did not teach measuring path characteristics but Kaplan et al (6,016,307) taught all of that, e.g., a telecommunication switching system employing a multi-protocol telecommunication routing optimization which utilizes predetermined and measured parameters in accordance with a set of user priorities in determining the selection of the lowest cost telecommunication path or route (col 5, line 23 et seq) wherein predetermined parameters included maxbandwidth, reliability, economy (cost), availability and security, (TABLE A), and measurable parameters included present state, average state, data size, time and available bandwidth, and wherein the system performed performance analysis of the route using a cost function analysis and selected routes according to cost characteristics and the like (col 3, line 29 et seq, cols 4-5, and col 7, line 24 et seq.)

78. On June 21, 2004, Internap then disclosed PMC's '307 patent in an Information Disclosure Statement as part of the prosecution of another pending Internap patent, U.S. Patent No. 7,555,542 (the "'542 patent").

79. Then on July 2, 2004, in the prosecution of the '055 patent, Internap responded to the examiner's rejections with regard to PMC's '307 patent. In doing so, Internap cancelled several of the rejected claims. Internap's response is provided below:

> The cited sections of *Kaplan* describe a routing optimization method that is applied to each path. The routing optimization method uses a calculation, $finalvalue(i), to determine the cost of a path and then selects the path having the highest value of $finalvalue(i) that is available, operational and meets a threshold value. Column 5, lines 47-64. The calculation uses predetermined and measured values. Column 4, lines 15-65. *Kaplan* does not describe that the route optimization routine uses inferred values, as recited by independent Claim 67. In addition, *Kaplan* does not describe the use of subnets in describing routes, as recited by independent Claims 67, 75 and 81. *Kaplan* only describes the analysis of point-to-point routes. *Kaplan* does not describe optimization based on partitions, as recited by independent Claim 75. Claim 75 recites optimization by source subnet, as well as by destination subnet. In contrast *Kaplan* only describes optimization by specific path.

80. Despite Internap's response, on October 8, 2004, the examiner maintained his rejection of almost all of the previously rejected claims for the same reasons as provided in the March 29, 2004 office action.

81. The prosecution histories of Internap's '055 and '542 patents prove that Internap had knowledge of, at least, PMC's '307 patent before the filing of this complaint.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 6,016,307

82. PMC realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

83. PMC is the owner of the entire right, title and interest in and to the '307 patent.

84. PMC is informed and believes, and on that basis alleges, that Internap has directly and indirectly infringed and is currently directly and indirectly infringing one or more claims (*e.g.,* claim 1) of the '307 patent, in violation of 35 U.S.C. § 271.

85. Internap infringes literally and/or under the doctrine of equivalents, by, among other things, making, using, offering for sale, selling, and/or importing within this judicial

district and elsewhere in the United States, without license or authority, infringing products, such as MIRO (and its predecessor product, the Flow Control Platform).

86. Internap's acts of making, using, selling, offering to sell, and importing infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes satisfy, literally or under the doctrine of equivalents, each and every claim limitation, including without limitation claim 1 of the '307 patent.

87. In addition, Internap has actively induced, and continues to actively induce others, such as its customers and end users of infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes, to directly infringe each and every claim limitation, including without limitation claim 1 of the '307 patent, in violation of 35 U.S.C. § 271(b). Upon information and belief, Internap's customers and/or end users have directly infringed and are directly infringing each and every claim limitation, including without limitation claim 1 of the '307 patent. Internap has had actual knowledge of the '307 patent at least as of March 29, 2004. Internap has knowingly induced and is knowingly inducing its customers and/or end users to directly infringe the '307 patent, with the specific intent to encourage such infringement, and knowing that the induced acts constitute patent infringement. Internap's inducement includes, for example, providing technical guides, product data sheets, demos, software and hardware specifications, installation guides, FAQs, on-site or phone installation by Internap engineers, tutorials, and network configuration guides that induce its customers and/or end users to directly infringe the '307 patent.

88. Internap's acts of infringement have caused damage to PMC in an amount to be proven at trial. Consequently, PMC is entitled to recover damages adequate to compensate it for

the infringement complained of herein, but in no event less than a reasonable royalty, together with interest and costs as fixed by the Court.

89. PMC has suffered irreparable injury as a direct and proximate result of Internap's acts of infringement for which there is no adequate remedy at law. Unless Internap is enjoined, PMC will continue to suffer such irreparable injury as a direct and proximate result of the conduct of Internap.

90. On information and belief, Internap knew of the '307 patent as early as March 29, 2004, if not earlier.

91. On information and believe, Internap undertook its activities of making, using, offering for sale, selling, and/or importing unlicensed products and services despite being aware of an objectively high likelihood that it was infringing the valid '307 patent. As such, Internap willfully infringed the '307 patent.

92. Given the facts of this case, PMC is further entitled to enhanced damages of three times the amount found or assessed under 35 U.S.C. § 284.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 6,144,641

93. PMC realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

94. PMC is the owner of the entire right, title and interest in and to the '641 patent.

95. PMC is informed and believes, and on that basis alleges, that Internap has directly and indirectly infringed and is currently directly and indirectly infringing one or more claims (*e.g.,* claim 1) of the '641 patent, in violation of 35 U.S.C. § 271.

96. Internap infringes literally and/or under the doctrine of equivalents, by, among other things, making, using, offering for sale, selling, and/or importing within this judicial

district and elsewhere in the United States, without license or authority, infringing products, such as MIRO (and its predecessor product, the Flow Control Platform).

97. Internap's acts of making, using, selling, offering to sell, and importing infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes satisfy, literally or under the doctrine of equivalents, each and every claim limitation, including without limitation claim 1 of the '641 patent.

98. In addition, Internap is actively inducing others, such as its customers and end users of infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes, to directly infringe each and every claim limitation, including without limitation claim 1 of the '641 patent, in violation of 35 U.S.C. § 271(b). Upon information and belief, Internap's customers and/or end users have directly infringed and are directly infringing each and every claim limitation, including without limitation claim 1 of the '641 patent. Internap has actual knowledge of the '641 patent at least as of service of this complaint. Internap is knowingly inducing its customers and/or end users to directly infringe the '641 patent, with the specific intent to encourage such infringement, and knowing that the induced acts constitute patent infringement. Internap's inducement includes, for example, providing technical guides, product data sheets, demos, software and hardware specifications, installation guides, FAQs, on-site or phone installation by Internap engineers, tutorials, and network configuration guides that induce its customers and/or end users to directly infringe the '641 patent.

99. Internap's acts of infringement have caused damage to PMC in an amount to be proven at trial. Consequently, PMC is entitled to recover damages adequate to compensate it for

the infringement complained of herein, but in no event less than a reasonable royalty, together with interest and costs as fixed by the Court.

100. PMC has suffered irreparable injury as a direct and proximate result of Internap's acts of infringement for which there is no adequate remedy at law. Unless Internap is enjoined, PMC will continue to suffer such irreparable injury as a direct and proximate result of the conduct of Internap.

101. To the extent that facts learned in discovery show that Internap's infringement of the '641 patent is or has been willful, PMC reserve the right to request such a finding at the time of trial.

102. Given the facts of this case, PMC is further entitled to enhanced damages of three times the amount found or assessed under 35 U.S.C. § 284.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 6,456,594

103. PMC realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

104. PMC is the owner of the entire right, title and interest in and to the '594 patent.

105. PMC is informed and believes, and on that basis alleges, that Internap has directly and indirectly infringed and is currently directly and indirectly infringing one or more claims (*e.g.,* claim 1) of the '594 patent, in violation of 35 U.S.C. § 271.

106. Internap infringes literally and/or under the doctrine of equivalents, by, among other things, making, using, offering for sale, selling, and/or importing within this judicial district and elsewhere in the United States, without license or authority, infringing products, such as MIRO (and its predecessor product, the Flow Control Platform).

107. Internap's acts of making, using, selling, offering to sell, and importing infringing

products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes satisfy, literally or under the doctrine of equivalents, each and every claim limitation, including without limitation claim 1 of the ’594 patent.

108. In addition, Internap is actively inducing others, such as its customers and end users of infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes, to directly infringe each and every claim limitation, including without limitation claim 1 of the ’594 patent, in violation of 35 U.S.C. § 271(b). Upon information and belief, Internap’s customers and/or end users have directly infringed and are directly infringing each and every claim limitation, including without limitation claim 1 of the ’594 patent. Internap has actual knowledge of the ’594 patent at least as of service of this complaint. Internap is knowingly inducing its customers and/or end users to directly infringe the ‘594 patent, with the specific intent to encourage such infringement, and knowing that the induced acts constitute patent infringement. Internap’s inducement includes, for example, providing technical guides, product data sheets, demos, software and hardware specifications, installation guides, FAQs, on-site or phone installation by Internap engineers, tutorials, and network configuration guides that induce its customers and/or end users to directly infringe the ‘594 patent.

109. Internap’s acts of infringement have caused damage to PMC in an amount to be proven at trial. Consequently, PMC is entitled to recover damages adequate to compensate it for the infringement complained of herein, but in no event less than a reasonable royalty, together with interest and costs as fixed by the Court.

110. PMC has suffered irreparable injury as a direct and proximate result of Internap’s acts of infringement for which there is no adequate remedy at law. Unless Internap is enjoined,

PMC will continue to suffer such irreparable injury as a direct and proximate result of the conduct of Internap.

111. To the extent that facts learned in discovery show that Internap's infringement of the '594 patent is or has been willful, PMC reserve the right to request such a finding at the time of trial.

112. Given the facts of this case, PMC is further entitled to enhanced damages of three times the amount found or assessed under 35 U.S.C. § 284.

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 6,473,404

113. PMC realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

114. PMC is the owner of the entire right, title and interest in and to the '404 patent.

115. PMC is informed and believes, and on that basis alleges, that Internap has directly and indirectly infringed and is currently directly and indirectly infringing one or more claims (*e.g.,* claim 1) of the '404 patent, in violation of 35 U.S.C. § 271.

116. Internap infringes literally and/or under the doctrine of equivalents, by, among other things, making, using, offering for sale, selling, and/or importing within this judicial district and elsewhere in the United States, without license or authority, infringing products, such as MIRO (and its predecessor product, the Flow Control Platform).

117. Internap's acts of making, using, selling, offering to sell, and importing infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes satisfy, literally or under the doctrine of equivalents, each and every claim limitation, including without limitation claim 1 of the '404 patent.

118. In addition, Internap is actively inducing others, such as its customers and end users of infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes, to directly infringe each and every claim limitation, including without limitation claim 1 of the '404 patent, in violation of 35 U.S.C. § 271(b). Upon information and belief, Internap's customers and/or end users have directly infringed and are directly infringing each and every claim limitation, including without limitation claim 1 of the '404 patent. Internap has actual knowledge of the '404 patent at least as of service of this complaint. Internap is knowingly inducing its customers and/or end users to directly infringe the '404 patent, with the specific intent to encourage such infringement, and knowing that the induced acts constitute patent infringement. Internap's inducement includes, for example, providing technical guides, product data sheets, demos, software and hardware specifications, installation guides, FAQs, on-site or phone installation by Internap engineers, tutorials, and network configuration guides that induce its customers and/or end users to directly infringe the '404 patent.

119. Internap's acts of infringement have caused damage to PMC in an amount to be proven at trial. Consequently, PMC is entitled to recover damages adequate to compensate it for the infringement complained of herein, but in no event less than a reasonable royalty, together with interest and costs as fixed by the Court.

120. PMC has suffered irreparable injury as a direct and proximate result of Internap's acts of infringement for which there is no adequate remedy at law. Unless Internap is enjoined, PMC will continue to suffer such irreparable injury as a direct and proximate result of the conduct of Internap.

121. To the extent that facts learned in discovery show that Internap's infringement of the '404 patent is or has been willful, PMC reserve the right to request such a finding at the time of trial.

122. Given the facts of this case, PMC is further entitled to enhanced damages of three times the amount found or assessed under 35 U.S.C. § 284.

COUNT V
INFRINGEMENT OF U.S. PATENT NO. 8,400,926

123. PMC realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

124. PMC is the owner of the entire right, title and interest in and to the '926 patent.

125. PMC is informed and believes, and on that basis alleges, that Internap has directly and indirectly infringed and is currently directly and indirectly infringing one or more claims (*e.g.,* claim 1) of the '926 patent, in violation of 35 U.S.C. § 271.

126. Internap infringes literally and/or under the doctrine of equivalents, by, among other things, making, using, offering for sale, selling, and/or importing within this judicial district and elsewhere in the United States, without license or authority, infringing products, such as MIRO (and its predecessor product, the Flow Control Platform).

127. Internap's acts of making, using, selling, offering to sell, and importing infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes satisfy, literally or under the doctrine of equivalents, each and every claim limitation, including without limitation claim 1 of the '926 patent.

128. In addition, Internap is actively inducing others, such as its customers and end users of infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes, to directly infringe each and every claim

limitation, including without limitation claim 1 of the '926 patent, in violation of 35 U.S.C. § 271(b). Upon information and belief, Internap's customers and/or end users have directly infringed and are directly infringing each and every claim limitation, including without limitation claim 1 of the '926 patent. Internap has actual knowledge of the '926 patent at least as of service of this complaint. Internap is knowingly inducing its customers and/or end users to directly infringe the '926 patent, with the specific intent to encourage such infringement, and knowing that the induced acts constitute patent infringement. Internap's inducement includes, for example, providing technical guides, product data sheets, demos, software and hardware specifications, installation guides, FAQs, on-site or phone installation by Internap engineers, tutorials, and network configuration guides that induce its customers and/or end users to directly infringe the '926 patent.

129. Internap's acts of infringement have caused damage to PMC in an amount to be proven at trial. Consequently, PMC is entitled to recover damages adequate to compensate it for the infringement complained of herein, but in no event less than a reasonable royalty, together with interest and costs as fixed by the Court.

130. PMC has suffered irreparable injury as a direct and proximate result of Internap's acts of infringement for which there is no adequate remedy at law. Unless Internap is enjoined, PMC will continue to suffer such irreparable injury as a direct and proximate result of the conduct of Internap.

131. To the extent that facts learned in discovery show that Internap's infringement of the '926 patent is or has been willful, PMC reserve the right to request such a finding at the time of trial.

132. Given the facts of this case, PMC is further entitled to enhanced damages of three

times the amount found or assessed under 35 U.S.C. § 284.

COUNT VI
INFRINGEMENT OF U.S. PATENT NO. 9,036,499

133. PMC realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

134. PMC is the owner of the entire right, title and interest in and to the '499 patent.

135. PMC is informed and believes, and on that basis alleges, that Internap has direclty infringed and is currently directly infringing one or more claims (*e.g.,* claim 19) of the '499 patent, in violation of 35 U.S.C. § 271.

136. Internap infringes literally and/or under the doctrine of equivalents, by, among other things, making, using, offering for sale, selling, and/or importing within this judicial district and elsewhere in the United States, without license or authority, infringing products, such as MIRO (and its predecessor product, the Flow Control Platform).

137. Internap's acts of making, using, selling, offering to sell, and importing infringing products, such as MIRO (and its predecessor product, the Flow Control Platform), and related products and/or processes satisfy, literally or under the doctrine of equivalents, each and every claim limitation, including without limitation claim 19 of the '499 patent.

138. Internap's acts of infringement have caused damage to PMC in an amount to be proven at trial. Consequently, PMC is entitled to recover damages adequate to compensate it for the infringement complained of herein, but in no event less than a reasonable royalty, together with interest and costs as fixed by the Court.

139. PMC has suffered irreparable injury as a direct and proximate result of Internap's acts of infringement for which there is no adequate remedy at law. Unless Internap is enjoined,

PMC will continue to suffer such irreparable injury as a direct and proximate result of the conduct of Internap.

140. To the extent that facts learned in discovery show that Internap's infringement of the '499 patent is or has been willful, PMC reserve the right to request such a finding at the time of trial.

141. Given the facts of this case, PMC is further entitled to enhanced damages of three times the amount found or assessed under 35 U.S.C. § 284.

PRAYER FOR RELIEF

PMC respectfully requests that this Court enter:

A. A judgment in favor of PMC that Internap has infringed the Asserted PMC Patents;

B. A permanent injunction enjoining Internap and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement of the Asserted PMC Patents, or such other equitable relief the Court determines is warranted;

C. A judgment and order requiring Internap to pay PMC its damages, costs, expenses, and prejudgment and post-judgment interest for Internap's infringement of the Asserted PMC Patents as provided under 35 U.S.C. § 284;

D. That Internap's infringement be adjudged willful;

E. That the damages for Internap's infringement be increased under 35 U.S.C. § 284 to three times the amount found or assessed;

F. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to PMC its reasonable attorneys' fees against Internap;

G. A judgment and order requiring Internap to provide an accounting and to pay supplemental damages to PMC, including without limitation, pre-judgment and post-judgment interest; and

H. Any and all other relief to which PMC may be entitled.

DEMAND FOR JURY TRIAL

PMC, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: February 26, 2016

RUSS AUGUST & KABAT

/s/ *Marc A. Fenster*

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3). Any other counsel of record will be served by electronic mail, facsimile, and/or first class mail on this date.

/s/ *Marc A. Fenster*