

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

VALTRUS INNOVATIONS LTD., KEY PATENT INNOVATIONS LIMITED, Plaintiffs, v. GOOGLE LLC, Defendant.	Civil Action No. 3:24-CV-03249-S
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DEFENDANT GOOGLE LLC'S PRELIMINARY INVALIDITY CONTENTIONS

I. INTRODUCTION

Pursuant to Miscellaneous Order No. 62 ¶ 3-3(a), Defendant Google LLC ("Google") provides these Preliminary Invalidity Contentions ("Invalidity Contentions") to Plaintiffs Valtrus Innovations, Ltd. ("Valtrus") and Key Patent Innovations Limited ("KPI")(collectively, "Plaintiffs") for claims 1-8 ("Asserted Claims") of U.S. Patent No. 7,939,967 (the "'967 patent" or "Asserted Patent"), which were identified as asserted in Plaintiffs' Preliminary Infringement Contentions ("Infringement Contentions").

II. RESERVATIONS AND EXPLANATIONS

This disclosure is directed to invalidity issues only and does not address claim construction or non-infringement. *See* Miscellaneous Order No. 62 at 3-3(a). Google reserves all rights with respect to such issues, including but not limited to its position that the patent claims asserted by Plaintiffs are to be construed in a particular manner and are not infringed.

These Invalidity Contentions are preliminary and based on Google's current knowledge, understanding, and belief as to the facts and information available as of the date of these

contentions. Google has not yet completed its investigation, discovery, or analysis of information related to this action, and additional discovery may require Google to supplement or amend its Invalidity Contentions. Google reserves the right to amend or supplement its contentions once it gains access to relevant materials Plaintiffs have not yet produced. While Google has made a good-faith effort to provide a comprehensive list of prior art relevant to this case, Google reserves the right to modify or further supplement its prior art list and Invalidity Contentions at a later time with or based upon pertinent information that may be subsequently discovered from Plaintiffs or third parties. Moreover, discovery is ongoing and Google reserves the right to pursue all other defenses that may be available to it, including but not limited to defenses that the Patents-in-Suit are unenforceable based on inequitable conduct, patent misuse, laches, estoppel, waiver, acquiescence, patent exhaustion, unfair competition, unclean hands, express or implied license, or any other grounds.

Any invalidity analysis depends, ultimately, upon claim construction, which is a question of law reserved for the Court. Google reserves the right to amend, supplement, or materially modify its Invalidity Contentions in response to any additional claim construction positions that Plaintiffs may take in this case or based on any further claim construction the Court may adopt in this case. Google also reserves the right to assert that a claim is indefinite, not enabled, or fails to meet the written description requirement based on any additional claim construction positions Plaintiffs may take in this case or based on any further claim construction the Court may adopt in this case.

Google's Invalidity Contentions are directed to the claims asserted by Plaintiffs that are accused in Plaintiffs' Preliminary Infringement Contentions. As Google outlined in its May 22, 2025 letter to Plaintiffs, Plaintiffs' Preliminary Infringement Contentions are woefully deficient.

Accordingly, Google reserves the right to modify, amend, supplement or otherwise alter its Invalidity Contentions in the event that Plaintiffs supplement or amend their infringement contentions to address these deficiencies or take a claim construction position that is different than or in addition to those seemingly set forth in their Infringement Contentions, or for any other reason constituting good cause to modify, amend, supplement or otherwise alter these Invalidity Contentions.

Google further contends that Plaintiffs appear to be pursuing overly broad constructions of the Asserted Claims in an effort to piece together an infringement claim where none exists and to accuse products that do not practice the claims as properly construed. At the same time, Plaintiffs' Preliminary Infringement Contentions are in many places too general and vague to discern exactly how Plaintiffs contend the Accused Instrumentalities practice each element of the Asserted Claims. *See* May 22, 2025 Letter. Accordingly, these Invalidity Contentions are not intended to be, and are not, an admission that the Asserted Claims are infringed by any of Google's products or technology, that any particular feature or aspect of the Accused Instrumentalities practices any elements of the Asserted Claims, or that any of Plaintiffs' apparent constructions are supportable or proper. To the extent that any of the prior art references disclose the same functionality or feature of any of the Accused Instrumentalities, Google reserves the right to argue that said feature or functionality does not practice any element of any of the Asserted Claims, and to argue, in the alternative, that if said feature or functionality is found to practice any element of any of the Asserted Claims, then the prior art reference demonstrates that that element is not novel, is obvious, or is not patentable.

Attached hereto as Exhibits Nos. 967-1 to 967-37 are representative claim charts that demonstrate how the Asserted Claims are invalid in view of certain prior art. The references cited

in the attached claim charts may disclose the limitations of the Asserted Claims expressly and/or inherently. Moreover, the suggested obviousness combinations are in the alternative to Google's contentions regarding anticipation. These obviousness combinations should not be construed to suggest that any reference included in any combination is not anticipatory in its own right.

In their Preliminary Infringement Contentions, Plaintiffs purport to provide doctrine of equivalents arguments. As Google set forth in its May 22, 2025 letter, those conclusory statements regarding doctrine of equivalents are insufficient to provide notice as to Plaintiffs' theories of infringement. Google reserves the right to modify, amend, supplement or otherwise alter its Invalidity Contentions in the event Plaintiffs modify, amend, supplement, or clarify their infringement contentions with respect to direct infringement (literal and under the doctrine of equivalents).

Prior art not included in this disclosure, whether known or not known to Google, may become relevant. In particular, Google is currently unaware of the extent to which Plaintiffs will contend that limitations of the Asserted Claims are not disclosed in the prior art identified herein. To the extent that such an issue arises, Google reserves the right to identify additional teachings in the same references or in other references that anticipate or would have made the addition of the allegedly missing limitation obvious. Moreover, Google may subpoena additional third parties believed to have information relevant to this disclosure and expressly reserves the right to amend, supplement, or modify this disclosure as additional information is obtained from third parties, or from Plaintiffs themselves.

Google further reserves the right to rely on uncited portions of the prior art references and in other publications and testimony as aids in understanding and interpreting the cited portions, as providing context thereto, and as additional evidence that a claim limitation is known or disclosed.

Google further reserves the right to rely on uncited portions of the prior art references, other publications, and testimony to establish bases for combinations of certain cited references that render the asserted claims obvious.

The references discussed in the claim charts identified above or elsewhere may disclose the elements of the Asserted Claims explicitly and/or inherently, and/or they may be relied upon to show the state of the art in the relevant time frame. Google further reserves the right to rely on additional publications, materials, and testimony that are not yet currently identified for purposes other than as prior art, including but not limited to background, state of the art in the relevant time frame, level of ordinary skill in the art, and motivation to combine. The suggested obviousness combinations below are provided in the alternative to Google's anticipation contentions and are not to be construed to suggest that any reference included in the combinations is not by itself anticipatory.

Google reserves the right to modify, amend, or supplement these disclosures as additional information becomes available, and as its discovery and investigation proceed.

III. PRIORITY DATE OF THE ASSERTED PATENTS AND CLAIMS

Google reserves the right to amend its Invalidity Contentions with additional prior art and/or with additional charts of the art if Plaintiffs change their position and allege earlier or later priority dates. In particular, in Section E of their infringement contentions cover pleading, Plaintiffs expressly stated that "Plaintiffs note that this is a priority date that may be claimed based on earlier applications as distinguished, for example, from even earlier dates that may be claimed on alternative bases such as the timing of conception or actual reduction to practice. Pending Plaintiffs' further investigation, including third-party discovery, Plaintiffs reserve the right to assert earlier dates that may be claimed on bases such as the timing of conception or actual reduction to practice." Google therefore also reserves its right to amend its Invalidity Contentions

if Plaintiffs are permitted to allege earlier dates of conception for the patent-in-suit, or if Plaintiffs do not meet their burden to prove the priority date they assert.

IV. THE '967 PATENT

1. Misc. Order No. 62 ¶ 3-3(a)(1): Identification of Prior Art¹

Patent References

Google identifies below the patent references presently known to Google that anticipate and/or render obvious the asserted claims of the '967 patent. Google incorporates by reference all prior art references cited in the patents listed herein and/or their file histories. Google reserves the right to rely upon foreign counterparts of the U.S. Patents identified in these Invalidity Contentions, U.S. counterparts of foreign patents and foreign patent applications identified in these Invalidity Contentions, U.S. and foreign patents and patent applications corresponding to articles and publications identified in these Invalidity Contentions, and any systems, products, or prior inventions related to any of the references identified in these Invalidity Contentions. The following patents are prior art under at least 35 U.S.C. §§ 102(a), (b), (e), (f), (g), and/or 103.

Country of Origin	Patent Number	Issue Date	Priority Date
United States	4,675,539	June 23, 1987	September 17, 1985
United States	5,631,814	May 20, 1997	June 16, 1995
United States	6,018,204	January 25, 2000	January 16, 1997
United States	6,735,704	May 11, 2004	October 20, 2000
United States	6,854,065	February 8, 2005	July 30, 2001
United States	7,330,990	February 12, 2008	August 8, 2003
United States	7,709,975	May 4, 2010	January 3, 2008
United States	7,777,368	August 17, 2010	February 5, 2007
United States	7,877,622	January 25, 2011	December 13, 2007
United States	7,898,106	March 1, 2011	July 16, 2008
United States	8,335,065	December 18, 2012	April 30, 2007
United States	8,546,977	October 1, 2013	April 22, 2009
United States	9,831,670	November 28, 2017	April 30, 2009

¹ To the extent one or more prior art patents or publications are identified in the claim charts attached to this document but are not included in the table and list for the '967 Patents, those prior art patents or publications should also be considered as prior art to the '967 Patent.

United States	2002/0113494	August 22, 2002	December 15, 2000
United States	2003/0042798	March 6, 2003	August 30, 2001
United States	2005/0281057	December 22, 2005	June 22, 2004
United States	2006/0226706	October 12, 2006	April 8, 2005
United States	2008/0164759	July 10, 2008	January 4, 2007
United States	2009/0204838	August 13, 2009	February 7, 2008
United States	2009/0243391	October 1, 2009	March 31, 2008
United States	2010/0019576	January 28, 2010	July 24, 2008
United States	2010/0141039	June 10, 2010	January 19, 2009
United States	2010/0281281	November 4, 2010	April 30, 2009
United States	2010/0289335	November 18, 2010	May 12, 2009

Publications

Google identifies below the publications presently known to Google that anticipate and/or render obvious the asserted claims of the '967 patent. Google incorporates by reference all prior art references cited in the publications listed herein. To the extent the following publications disclose and describe particular products and/or software programs that were publicly known and/or in public use prior to the priority date of the '967 patent, in addition to each publication itself serving as a prior art reference under 35 U.S.C. § 102, Google may rely on the various products and/or software programs described in the publications as grounds for invalidity under 35 U.S.C. § 102 because they were in public use, in which case it would have been obvious to a person of ordinary skill in the art to combine the actual systems in public use with the published documents describing those systems because the documents described the systems in public use and refer to them throughout. The following publications are prior art under at least 35 U.S.C. §§ 102(a), (b), (e), (f), (g), and/or 103.

Title	Date of Publication	Author(s)	Publisher
Allen-Bradley Application Note 1606-XLRED20-30 ("Allen-Bradley)	March 2003	Rockwell Automation	Rockwell Automation

Combination Voltage-Controlled and Current-Controlled PWM Inverters for UPS Parallel Operation (“Chen”)	September 1995	Jiann-Fuh Chen and Ching-Lung Chu	IEEE
Cisco External Power Supply for Cisco Ethernet Switch Network Modules Installation Guide (“Cisco”)	November 2, 2007	Cisco	Cisco
Understanding Redundancy in Dell PowerEdge Blade Servers (“Dell”)	May 2006	Narayan Devireddy and Sanjeev S. Singh	Dell
ControlWave Redundant I/O and Communications Switch Unit (“Emerson”)	January 2008	Emerson	Emerson
Genius™ Modular Redundancy Flexible Triple Modular Redundant (TMR) System Technical Product Overview (“GE”)	February 1998	General Electric	GE Fanuc Automation North America
Control of Distributed Uninterruptible Power Supply Systems (“Guererro”)	August 2008	Josep M. Guerrero, Lijun Hang, and Javier Uceda	IEEE
Multi-Inverter UPS System with Redundant Load Sharing Control (“Holtz”)	December 1990	Joachim Holtz and Karl-Heinz Werner	IEEE
Powering the data center efficiently: best practices (“HP”)	April 2004	Hewlett-Packard	Hewlett-Packard Development Company, L.P.

Redundant power techniques for servers explained (“Kando”)	May 8, 2007	Bob Kando	EE Times
Do dual-power supply servers increase redundancy? (“Neudorfer”)	January 17, 2008	Julius Neudorfer	TechTarget
Telecommunications Infrastructure Standard for Data Centers (“TIA”)	April 12, 2005	Telecommunications Industry Association	Telecommunications Industry Association

Prior Art Systems

Google identifies below the systems or software products presently known to Google that anticipate and/or render obvious the asserted claims of the '967 patent. Google incorporates by reference all prior art references cited in the publicly available materials listed herein. Although Google's investigation continues, information available to date indicates that each system or software product was (i) known or used in this country before the alleged invention of the claimed subject matter of the asserted claims; (ii) was in public use and/or on sale in this country and/or was the subject of a printed publication more than one year before the filing date of the patent; and/or (iii) was invented by another who did not abandon, suppress, or conceal, before the alleged invention of the claimed subject matter of the asserted claims. While Google is producing publicly available materials uncovered to date regarding these systems, discovery into the functionality embodied in these systems is ongoing. The following systems or software products are prior art under at least 35 U.S.C. §§ 102(a), (b), (f), and/or (g).

System/Service	Date Became Public	Entities Involved in Public Use
Allen-Bradley 1606-XLRED20-30	No later than March 2003	Allen-Bradley / Rockwell Automation

Cisco External Power Supply for Cisco Ethernet Switch Network Modules	No later than November 2, 2007	Cisco
Dell PowerEdge Blade Servers	No later than May 2006	Dell
ControlWave Redundant I/O And Communications Switch Unit	No later than January 2008	Emerson
GE Fanuc Genius Modular Redundancy System	No later than February 1998	GE Fanuc Automation North America
HP ProLiant Servers	No later than April 2004	Hewlett Packard
Lenoir Data Center	No later than May 21, 2008	Google

2. Misc. Order No. 62 ¶ 3-3(a)(2): Whether Each Item of Prior Art Anticipates or Renders Obvious the Asserted Claims of the '967 Patent

Each of the Asserted Claims is invalid because it fails to meet one or more requirements for patentability. The individual bases for invalidity, including whether and how each item of prior art anticipates each Asserted Claim or renders it obvious, are provided in the charts attached as Exhibit Nos. 967-1 to 967-37. Each of the foregoing listed prior art references, the underlying work, and/or the underlying apparatus or method qualifies as prior art under one or more subsections of 35 U.S.C. § 102 or § 103.

Although Google has identified at least one citation per limitation for each reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, in an effort to focus the issues, Google has generally cited representative portions of identified references, even where a reference may contain additional support for a particular claim element. In addition, persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general knowledge.

Google may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited. Google may also rely on the prior art of record for any permissible purpose, including prior art discussed in the Patent-in-Suit itself, including to show that the Patent-in-Suit is anticipated or obvious, show the state of the art, show motivation to combine a reference with one or more other references, and to show the proper scope of the claims. Google may also rely on uncited portions of the prior art references, other disclosed publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Anticipation

Some or all of the Asserted Claims are invalid as anticipated under 35 U.S.C. § 102 under the prior art references identified above and in the claim charts included in Exhibit Nos. 967-1 to 967-37, which identify specific examples of where each limitation of the Asserted Claims is found in the prior art references. As explained above, the cited portions of prior art references identified in the attached claim charts are exemplary only and representative of the content and teaching of the prior art references, and should be understood in the context of the reference as a whole and as they would be understood by a person of ordinary skill in the art.

Obviousness

Each anticipatory prior art reference, either alone or in combination with other prior art, also renders the asserted claims obvious to one of ordinary skill in the art. To the extent any limitation is deemed not to be exactly met, either explicitly or inherently, by an item of prior art listed above and in Exhibit Nos. 967-1 to 967-37, then any purported differences are such that the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of

the alleged invention, in view of the state of the art and knowledge of those skilled in the art. In particular, each anticipatory prior art reference on its own renders obvious the claimed inventions and also may be combined with (i) information known to persons skilled in the art at the time of the alleged invention and/or (ii) any of the other anticipatory prior art references. The item of prior art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

The Supreme Court clarified the standard for what types of inventions are patentable. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1731 (2007) (“[T]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”). In particular, the Supreme Court emphasized that inventions arising from ordinary innovation, ordinary skill or common sense should not be patentable. *See id.* at 1732, 1738-39, 1742-43, 1746. Because the asserted patent simply combines elements well known in the art in a straightforward fashion to achieve a well-known and obvious result and thus yields no more than one skilled in the art would expect from such combinations, the claims of that patent are obvious. The asserted claims are therefore invalid under 35 U.S.C. § 103 because they do nothing more than combine known techniques and apparatuses according to their known and ordinary uses to yield predictable results.

The Supreme Court further held that “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill”

Id. at 1740. Accordingly, a person of skill in the art would have been motivated to combine or adapt known or familiar methods in the art, especially where market forces prompt such variations.

In view of *KSR*, the United States Patent and Trademark Office issued a set of new Examination Guidelines. See Examination Guidelines for Determining Obviousness Under 35 U.S.C. § 103, 72 Fed. Reg. 57526 (Oct. 10, 2007). These Guidelines identify various rationales under *KSR* for finding a claim obvious at the time of the filing of the application for this patent, including those based on other precedents, including but not limited to:

(A) Combining prior art elements according to known methods to yield predictable results;

(B) Simple substitution of one known element for another to obtain predictable results;

(C) Use of known techniques to improve similar devices (methods, or products) in the same way;

(D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

(E) “Obvious to try” – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. See 72 Fed. Reg. 57529.

These rationales apply in rendering obvious the asserted claims of the asserted patent. Here, the specification acknowledges that “[v]arious devices and systems use multiple power supplies

in order to increase reliability or ‘up time’ through redundancy.” ’967 patent at 1:5-7. The prior art likewise confirms that using redundant power supplies to minimize or avoid downtime should a power supply fail had long been known in the art as of the June 25, 2009 filing date of the ’967 patent. *See, e.g.*, U.S. Patent No. 4,675,539 at 1:11-14 (“In cases where it is crucial to avoid an interruption of power to any of the loads, each primary power supply typically has its own redundant backup power supply.”)(filed September 17, 1985); U.S. Patent No. 5,631,814 at 4:11-16 (“the invention allows for the connection of a high voltage DC backup voltage derived from the backup power supply directly to the holdover capacitor of the main power supply so as to substitute for the loss of high voltage DC from the AC to DC converter, in the event of a main power failure”)(filed June 16, 1995). Moreover, automating the switchover from one power supply to the other, again with the goal of minimizing or avoiding downtime should a power supply fail, was similarly well-known in the art and had been for some time. *See, e.g.*, U.S. Patent No. 4,675,539 at 1:38-44 (“The power fault information is carried on a link by biasing the link to a first logical value, the link being driven to have another logical value when a failure is detected and the link is driven to the other logical value by an open collector transistor; then when a power supply is disconnected for repair, the backup supply is automatically switched in.”)(filed September 17, 1985); U.S. Patent No. 5,631,814 at 1:16-33 (discussing “[c]onventional design” of uninterrupted power supplies such that the electrical load “receives power all the time either from the AC utility power line or, in the event of a power failure, from a backup battery”)(filed September 17, 1985).

As a result, one skilled in the art would have known to combine or modify references that described known systems and methods which one of skill in the art would have recognized as offering improvements to solutions at that time. Each of the prior art references identified herein

described systems and methods that were known to offer such improvements, and, accordingly, one of skill in the art would have been motivated to combine or modify the references as described herein. Indeed, both the specification and the prior art acknowledge that entities use redundant power systems—as opposed to replacing a failed power supply *ad hoc*—to minimize service disruptions. A person of skill in the art would thus be motivated to combine teachings from redundant power systems that further minimized downtimes.

In light of the various reasons to combine discussed in detail below, invalidity under 35 U.S.C. § 103 can be based on one or more references disclosed herein. If and to the extent Plaintiffs argue that one or more of these references, combined with the knowledge of persons of ordinary skill in the art at the relevant time, fails to disclose one or more specific elements of an asserted claim, Google reserves the right to rely on the combination of one or more of the references disclosed herein, with one or more other references disclosed herein. Further, to the extent Plaintiffs argue that claim elements that are not disclosed in the specification of the asserted patent and/or related applications were enabled, Google reserves the right to rely on the combination of one or more of the references disclosed herein with one or more other references disclosed herein.

Reasons exist to combine one or more of the references included in these Invalidity Contentions with each other. Generally, reasons to combine any of these references with others exist within the references themselves, as well as within the knowledge of those of ordinary skill in the art at the relevant time. For example, many of these references identify and address the same issues and suggest very similar solutions to those issues in the field of redundant power supplies. If and to the extent that Plaintiffs challenge the correspondence of any of these references with respect to particular elements of the Asserted Claims, Google reserves the right to supplement these Invalidity Contentions to identify additional motivations to combine particular references

with one another to the extent necessary. Google may rely upon a subset of the references or all of the references depending upon further investigation. Google's contentions that the references in this section, in various combinations, render the Asserted Claims obvious under 35 U.S.C. § 103 are in no way an admission or suggestion that each reference does not independently anticipate the Asserted Claims under 35 U.S.C. § 102. Any of the references disclosed herein, may be combined with other references disclosed herein, to render obvious, and therefore invalid, each of the Asserted Claims.

With respect to the prior art references disclosed in the attached exhibits, a person of ordinary skill in the art would have been motivated to combine any of them for a number of reasons, including the reasons set forth in the attached exhibits. The '967 patent concedes that "[v]arious devices and systems use multiple power supplies in order to increase reliability or 'up time' through redundancy." 1:5-7. Moreover various industry standards that predate the '967 patent, such as the TIA Standard charted in Exhibit 967-32, mandate redundant power supplies and/or impose uptime requirements that strongly motivate persons of skill in the art to use redundant power supplies. Of note, Plaintiffs' infringement contentions appear to contend that *any* use of redundant power will meet the claim limitations. Under Plaintiffs' infringement read then, the patent is invalidated by its own acknowledged prior art. Plaintiffs' opposition to Google's Renewed Motion to Dismiss based on 35 U.S.C. § 101 (Dkt. 38-1) attempts to narrow claim 1 by asserting that its limitations require that the two power supplies operate at unequal power levels. Dkt. 39 at 1, 8, 9, 11, 17-19. To the extent Plaintiffs suggest this claim interpretation renders the claims nonobvious under 35 U.S.C. § 103, claim 1 would still be rendered invalid by its own acknowledged art because even under Plaintiffs' reading, neither the claim nor the specification teach **how** to achieve the unequal power levels. The claims would thus be either invalid for lack

of enablement if a person of skill in the art could not achieve unequal power levels, or invalid as obvious if a person of skill in the art could achieve unequal power levels without any instruction from the '967 patent. In any event, the prior art has long included references wherein one of the redundant power supplies is not active, *i.e.* on standby outputting no power, while another power supply is active. *See, e.g.*, U.S. Patent No. 4,675,539 at 1:14-17 (“In some cases, the backup and primary supplies are constantly connected in parallel. In other cases, the backup supply is switched in only when the primary supply voltage falls too low.”)(filed September 17, 1985); U.S. Patent No. 5,631,814 at 1:31-33 (“The switch power supply receives power all the time either from the AC utility power line or, in the event of a power failure, from a backup battery.”)(filed June 16, 1995). Such art invalidates claim 1 under Plaintiffs’ § 101 validity theory to the extent Plaintiffs apply it to § 103.

In opposing Google’s § 101 motion, Plaintiffs also assert that claim 6, which requires that the second power supply begin on standby (zero-power) mode, recites an inventive concept. Dkt. 39 at 7, 20, 21-22. To the extent Plaintiffs suggest the limitation renders claim 6 nonobvious under 35 U.S.C. § 103, the prior art has long included references wherein one of the redundant power supplies is on standby outputting no power, while another power supply is active. *See, e.g.*, U.S. Patent No. 4,675,539 at 1:14-17 (“In some cases, the backup and primary supplies are constantly connected in parallel. In other cases, the backup supply is switched in only when the primary supply voltage falls too low.”)(filed September 17, 1985); U.S. Patent No. 5,631,814 at 1:31-33 (“The switch power supply receives power all the time either from the AC utility power line or, in the event of a power failure, from a backup battery.”)(filed June 16, 1995). Such art invalidates claim 6 under Plaintiffs’ § 101 validity theory to the extent Plaintiffs apply it to § 103.

Plaintiffs’ only other purported inventive concept for § 101 purposes lies in claims 2 and 8, which recite limitations requiring that the first (failing) power supply continue to provide power while the second (redundant) power supply ramps up its output. Dkt. 39 at 21, 24. To the extent Plaintiffs assert that these limitations render claims 2 and 8 nonobvious under § 103, the ’967 patent itself observes that “[o]ne of ordinary skill in the electrical arts will appreciate that the use of output filtering, buffering or energy storage capacitors within power supplies is a common practice,” such that “no additional elaboration is required” in using output filtering, buffering or energy storage capacitors to “provide conditioned power [] to the load [], while the power supply [] transitions from standby (i.e., no output) to full power output mode.” 3:37-48. The patent thus acknowledges that using output filtering, buffering or energy storage capacitors to maintain power continuity is known and deployed in the art such that its application to a power supply is obvious to a person of skill in the art. Moreover, a person of skill would be motivated to deploy existing redundant power supplies in a manner that maximizes “up time”—that is, such that any disruptions caused by the loss of a power supply are minimal if not nonexistent. It would thus be obvious to a person of skill in the art to partially if not fully automate the process of bringing a backup power supply online when a primary power supply fails. In any event and consistent with the ’967 patent specification, the prior art is replete with references that use battery backups to provide power from the first power supply while the second power supply ramps up its output. *See, e.g.*, TIA Standard at 95 (“UPS systems can be static, rotary or hybrid type and can either be online, offline or line interactive with sufficient backup time for the standby generator system to come online without interruption of power.”); U.S. Patent No. 7,962,772 at 4:34-40 (“Stored energy element 150 may be coupled to transfer switch 120 (e.g., through converter 160A), and may be viewed as an ‘emergency’ backup power source in the event that the secondary power

source is unavailable to provide power to load 125 when primary power (e.g., power mains 110 or other source of ‘normal’ power) is unavailable or unreliable.”). Given that redundant power supplies are generally used to minimize the downtime caused by power loss, a person of skill in the art would have been motivated to use such teachings to further reduce downtime by providing operating power to the electrical load during the period of time it takes the redundant power supply to ramp up to full operating power.

To the extent that Plaintiffs later allege that elements of claims 3-5 or 7 render the claims nonobvious under § 103, such features would have been obvious to a person of skill in the art at the time of the ’967 patent. With regard to claim 3, it would be obvious to a person of skill in the art to define the activation signal that causes the second power supply to increase its power output by the alert signal that indicates that the first power supply is failing, as that would tie the redundant power supply to the scenario that it is intended to address, i.e. the failure of the first power supply. For claim 4, it would similarly be obvious for the electrical load to provide the activation signal to the second power supply in response to the alert signal from the first power supply, as that would allow the electrical load to continue receiving operating power. For claim 5, it would be obvious to have the first power supply provide greater output should there be an anomaly in the second source of energy, since that would allow the two power supplies to back each other up, rather than leaving the system without recourse should the second power supply fail. Finally for claim 7, it would be obvious to a person of skill in the art to add a third power supply (or second redundant power supply) to particularly critical electrical loads such as life support equipment, as that would allow the equipment to continue functioning even if two power supplies fail.

Exemplary Prior Art Combinations
Allen-Bradley + Belady
Allen-Bradley + Buterbaugh
Allen-Bradley + Butka

Allen-Bradley + Chang
Allen-Bradley + Chen
Allen-Bradley + Cisco
Allen-Bradley + Dell
Allen-Bradley + Edelen
Allen-Bradley + Emerson
Allen-Bradley + GE Fanuc
Allen-Bradley + Groff
Allen-Bradley + Gruendler
Allen-Bradley + Guerrero
Allen-Bradley + Holtz
Allen-Bradley + HP
Allen-Bradley + Humphrey-281
Allen-Bradley + Humphrey-670
Allen-Bradley + Jain
Allen-Bradley + Jung
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3. Misc. Order No. 62 ¶ 3-3(a)(3): Charts Identifying Specifically Where and How in Each Prior Art Each Asserted Claim is Found

The claim charts attached as Exhibit Nos. 967-1 to 967-37 specify where the limitations of the Asserted Claims are disclosed in the prior art. This identification is based on Google’s current understanding of Plaintiffs’ apparent interpretation of the Asserted Claims as reflected by their infringement contentions. These Invalidity Contentions shall not be construed as an admission of or acquiescence to Plaintiffs’ proffered or apparent claim constructions and interpretations or of other positions advanced by Plaintiffs during the course of this litigation. Furthermore, they shall not prevent Google from advancing its claim construction and/or noninfringement positions.

These Invalidity Contentions are also intended to be exemplary in nature rather than exhaustive. Google has endeavored to identify the most relevant portions of the prior art references. The references, however, may contain additional support for a particular claim limitation. Google may rely on uncited portions of the prior art references, other documents, fact witness testimony, Plaintiffs’ testimony, and expert testimony to provide context or to aid in

understanding the cited portions of the references. Where Google cites to a particular figure in a reference, the citation should be understood to encompass the caption, related description of the figure, and any text relating to the figure. Conversely, where Google cites to particular text referring to a figure, the citation should be understood to include the figure as well. Google reserves the right to rely on any portion of each reference in this chart, cited or not, to show that the asserted claims are invalid.

Exhibit No.	Exhibit (charts explaining bases for invalidity of the '967 patent)²
967-1	Allen-Bradley 1606-XLRED20-30 ("Allen-Bradley")
967-2	US 2010/0141039 A1 ("Belady")
967-3	US 2010/0019576 A1 ("Buterbaugh")
967-4	US Pat. No. 6,735,704 ("Butka")
967-5	US 2003/0042798A1 ("Chang")
967-6	Jiann-Fuh Chen et al., "Combination Voltage-Controlled and Current-Controlled PWM Inverters for UPS Parallel Operation", IEEE Transactions of Power Electronics, Vol. 10, No. 5, (September 1995) ("Chen")
967-7	Cisco External Power Supply Overview ("Cisco")
967-8	Narayan Devireddy et al., "Understanding Redundancy in Dell PowerEdge Blade Servers", Dell Power Solutions (May 2006) ("Dell")
967-9	US 2006/0226706A1 ("Edelen")
967-10	Emerson, ControlWave Redundant I/O And Communications Switch Unit Instruction Manual ("Emerson")
967-11	GE Fanuc Automation ("GE Fanuc")
967-12	US Pat. No. 7,898,106 ("Groff")
967-13	US Pat. No. 7,877,622 ("Gruendler")
967-14	Josep M. Guerrero et al., "Control of Distributed Uninterruptible Power Supply Systems", IEEE Transactions on Industrial Electronics, Vol. 55, No. 8, August 2008 ("Guerrero")
967-15	Joachim Holtz et al., "Multi-Inverter UPS System with Redundant Load Sharing Control," IEEE Transactions on Industrial Electronics, Vol. 37, No. 6, December 1990 ("Holtz")
967-16	HP, "Powering the data center efficiently: best practices" ("HP")
967-17	US 2010/0281281 A1 ("Humphrey-281")
967-18	US Pat. No. 9,831,670 ("Humphrey-670")
967-19	US Pat. No. 7,962,772 ("Jain")
967-20	US 2005/0281057A1 ("Jung")

² An identification of a prior art reference for purposes of identifying an exhibit should be understood to mean that the chart discloses not only bases for invalidity based on that reference, but also that reference in combination with other references identified or referred to in the chart.

967-21	“Redundant power techniques for servers explained” by Bob Kando (“Kando”)
967-22	US Pat. No. 7,709,975 (“Kuo”)
967-23	US Pat. No. 6,018,204 (“Kuruma”)
967-24	Julius Neudorfer, “Do dual-power supply servers increase redundancy?” (“Neudorfer”)
967-25	US Pat. No. 4675539 (“Nichol”)
967-26	US Pat. No. 7,777,368 (“Randall”)
967-27	US Pat. No. 7,330,990 (“Sato”)
967-28	US 2008/0164759A1 (“Sharma”)
967-29	US Pat. No. 6,854,065 (“Smith I”)
967-30	US Pat. No. 8,335,065 (“Smith II”)
967-31	US 2009/0243391 (“Susong”)
967-32	ANSI/TIA-942-2005 TIA Standard: Telecommunications Infrastructure Standard for Data Centers (“TIA Standard”)
967-33	US 2010/0289335 A1 (“Togare-335”)
967-34	US Pat. No. 8,546,977 (“Togare-977”)
967-35	US 2002/0113494A1 (“Winick”)
967-36	US Pat. No. 5,631,814 (“Zak”)
967-37	Lenoir Data Center (“Lenoir”)

Google’s attached charts and tables provide citations to certain prior art references where information that anticipates and/or renders obvious the claimed inventions may be found, either expressly or inherently. There may, however, be additional support in the cited references or other grounds for Google’s contentions that such prior art meets a particular claim element, and Google reserves the right to supplement these Invalidity Contentions with such information. For example, persons of ordinary skill in the art at the time of the filing of the Patents-in-Suit knew to read prior art references as a whole (as opposed to excerpts in isolation), and in the context of other publications and literature as well as the general knowledge in the field. Google may rely on all such information, including uncited portions of the prior art references listed herein, and on other publications and testimony, to provide context and as aids to understanding and interpreting the listed references, or to establish that a person of ordinary skill in the art would have been motivated to modify or combine any of the cited references so as to render the claims obvious.

Some of the references on which Google relies are prior art systems that were known, sold, and/or used prior to the priority date of the Patent-in-Suit. Google is continuing to collect documentation, software, and source code regarding these prior art systems. Google reserves the right to supplement its contentions to include any further information obtained in discovery.

V. MISC. ORDER NO. 62 3-3(A)(4): IDENTIFICATION OF LIMITATIONS WHICH ARE INDEFINITE UNDER 35 U.S.C. § 112(B) OR LACK ENABLEMENT OR WRITTEN DESCRIPTION UNDER 35 U.S.C. § 112(A)

1. Indefiniteness

Google identifies the following additional grounds for invalidity of the Asserted Claims based on 35 U.S.C. § 112 ¶ 2. Google notes that its investigation is continuing, and discovery is ongoing. Google therefore is identifying those issues under 35 U.S.C. § 112 ¶ 2 of which it is currently aware. Google reserves the right to supplement and/or amend its contentions if Plaintiffs change their infringement contentions or allegations in any way.

Google's contentions regarding 35 U.S.C. § 112 ¶ 2 shall not be construed as an admission that any claim construction advanced by Google in this case is in any way inconsistent, flawed, or erroneous. Nor should these contentions prevent Google from advancing any claim construction and/or noninfringement positions. Further, these contentions shall not be construed as an admission of or acquiescence to Plaintiffs' apparent claim construction and interpretations or of other positions advanced by Plaintiffs during the course of this litigation.

Google contends that one or more of the Asserted Claims are invalid as indefinite under 35 U.S.C. § 112 ¶ 2. 35 U.S.C. § 112, ¶ 2 requires that a patent "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112, ¶ 2. This "definiteness standard" requires "clear notice of what is claimed, thereby appris[ing] the public of what is still open to them." *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014) (quoting *Nautilus, Inc. v. Biosig Instruments*,

Inc., 134 S. Ct. 2120, 2128–29 (2014)). The “statute requires . . . ‘that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.’” *Id.* (quoting *Nautilus*, 134 S. Ct. at 2129).³

The following claim limitations of the Asserted Claims are indefinite and therefore invalid: “failure condition”, “lesser output level”, “greater output level”, “activation signal is defined by the alert signal”, “anomaly”, “respective activation signal”, “internal energy storage”.

2. Lack of Enablement or Written Description

Google identifies the following additional grounds for invalidity of the Asserted Claims based on 35 U.S.C. § 112 ¶ 1. Google notes that its investigation is continuing and discovery is ongoing. Google therefore is identifying those issues under 35 U.S.C. § 112 ¶ 1 of which it is currently aware. Google reserves the right to supplement and/or amend its contentions if Plaintiffs change their infringement contentions or allegations in any way.

Google’s contentions regarding 35 U.S.C. § 112 ¶ 1 shall not be construed as an admission that any claim construction advanced by Google in this case is in any way inconsistent, flawed, or erroneous. Nor should these contentions prevent Google from advancing any claim construction and/or noninfringement positions. Further, these contentions shall not be construed as an admission of or acquiescence to Plaintiffs’ apparent claim construction and interpretations or of other positions advanced by Plaintiffs during the course of this litigation.

Google contends that one or more of the Asserted Claims are invalid for failure to comply with the written description requirements under 35 U.S.C. § 112 ¶ 1. The written description, drawings, and claims in a patent must clearly allow a person of ordinary skill in the art to

³ Google has also provided invalidity contentions under 35 U.S.C. § 102 and § 103 under Plaintiffs’ apparent claim constructions, all of which seem to contend that the claims are definite. Google’s provision of § 102 and § 103 arguments are in no case an admission that the Asserted Claims are definite.

understand and recognize that the patentee invented what is claimed. *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479 (Fed. Cir. 1998). In this regard, the patent must demonstrate by disclosure in the specification to those skilled in the art that the patentee had “possession” of what is now asserted to be the claimed invention. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1561 (Fed. Cir. 1991). The written description must actually or inherently disclose every claim element. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306-07 (Fed. Cir. 2008). It is not enough to say that undisclosed subject matter would have been obvious or within the normal skill set of a person of ordinary skill. *ICU Medical, Inc. v. Alaris Medical Sys., Inc.*, 558 F.3d 1368, 1377 (Fed. Cir. 2009). A written description that discloses only a certain method does not “necessarily support a broad claim as to every possible type of [method], no matter how different in structure or operation from the inventor’s [discussion].” *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1346 (Fed. Cir. 2005). That is, an inventor’s description of one type of method does not entitle the inventor to claim “any and all means for achieving that objective.” *Id.*; see also *ICU Medical*, 558 F.3d at 1377–79. Given the disclosure in the specification, and as Google understands Plaintiffs’ claim interpretations, the following claim limitations lack adequate written description, fail to meet the enablement requirement, and are thus invalid: “lesser output level”, “greater output level”, “activation signal is defined by the alert signal”, “standby signal”.

VI. MISC. ORDER NO. 62 3-3(A)(5): IDENTIFICATION OF CLAIMS DIRECTED TO INELIGIBLE SUBJECT MATTER UNDER 35 U.S.C. § 101

In addition to the preceding Invalidity Contentions, Google further contends that all Asserted Claims are drawn to subject matter that is not patentable under 35 U.S.C. § 101. Dkt. 22-1, Dkt. 38, Dkt. 42.

VII. DOCUMENT PRODUCTION ACCOMPANYING PRELIMINARY INVALIDITY CONTENTIONS

Google is producing and/or making available for inspection documents required under Miscellaneous Order No. 62 ¶ 3-4, including all prior art referenced above and technical documents sufficient to show the operation of the accused products at the following Bates numbers: GOOG-VALT967-000000001 to GOOG-VALT967-00000802, and GOOG-VALT967-PA-000000001 to GOOG-VALT967-PA-00000774.

Google reserves the right to identify and produce additional documents pursuant to Misc. Order 62 and the orders of the Court.

CERTIFICATE OF SERVICE

I hereby certify that on June 13, 2025, the foregoing was served via email on all counsel of record.

/s/ Antonio Sistos