

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Brycer, LLC, Brycer Management, Inc.,
Petitioners

v.

Tegris, Inc.,
Patent Owner

Case No. IPR2023-01196
Patent No. 11,126,966

Petition for *Inter Partes* Review

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Mandatory Notices (37 C.F.R. §42.8)	2
	A. Real Parties in Interest (37 C.F.R. §42.8(b)(1)).....	2
	B. Related Matters (37 C.F.R. §42.8(b)(2)).....	2
	C. Counsel and Service Information (37 C.F.R. §§42.8(b)(3)-(4))	2
III.	Requirements for <i>Inter Partes</i> Review (37 C.F.R. §42.104)	3
	A. Grounds for Standing (37 C.F.R. §42.104(a))	3
	B. Identification of Challenge (37 C.F.R. §42.104(b)(1)-(2)) and Relief Requested (37 C.F.R. §42.22(a)(1))	3
IV.	Relevant Information Concerning the Contested Patent	3
	A. Overview of the '966 Patent.....	3
	B. Person of Ordinary Skill in the Art	5
	C. The '966 Patent's Priority Date.....	6
	D. Claim Construction (37 C.F.R. §42.104(b)(3)).....	9
V.	The Specific Grounds of Unpatentability.....	10
	A. Exemplary Prior Art and State of the Art.....	10
	1. <i>Key</i>	10
	2. <i>Chauhan</i>	14
	3. <i>Sweeney</i>	16
	4. <i>McKinney</i>	18
	5. <i>Campion</i>	18
	6. <i>Lloyd'150</i>	20

B.	Ground 1: Key, Chauhan, Sweeney and McKinney Render Obvious Claims 8-16.....	21
1.	Obviousness of Combining Key, Chauhan, Sweeney, and McKinney.....	21
2.	Claim 8.....	29
3.	Claim 9.....	67
4.	Claim 10.....	68
5.	Claim 11.....	69
6.	Claim 12.....	71
7.	Claim 13.....	74
8.	Claim 14.....	75
9.	Claim 15.....	76
10.	Claim 16.....	77
VI.	Section 314 Denial is Unwarranted.....	77
VII.	Conclusion	79

LIST OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 11,126,966
1002	File History of U.S. Patent No. 11,126,966
1003	Declaration of Richard MacInnes
1004	Curriculum Vitae of Richard MacInnes
1005	U.S. Patent App. Pub. No. 2002/0029222 to <i>Key</i>
1006	U.S. Patent App. Pub. No. 2005/0021449 to <i>Sweeney</i>
1007	U.S. Patent No. 7,649,450 to <i>Campion</i>
1008	U.S. Patent Prov. App. No. 60/849, 478 to <i>Campion</i>
1009	U.S. Patent Prov. App. No. 60/886,269
1010	U.S. Patent Prov. App. No. 60/977,870
1011	U.S. Patent Prov. App. No. 60/981,091
1012	U.S. Patent Prov. App. No. 60/981,784
1013	U.S. Patent Prov. App. No. 60/969,905
1014	U.S. Patent Prov. App. No. 60/981,782
1015	U.S. Patent No. 5,680,329 to <i>Lloyd</i>
1016	WO 2004/104891 to <i>Chauhan</i>
1017	U.S. Patent App. Pub. No. 2006/0152349 to <i>Ratnakar</i>
1018	U.S. Patent App. Pub. No. 2006/0197678 to <i>Silvers</i>
1019	U.S. Patent App. Pub. No. 2003/0126002 to <i>Jackson</i>
1020	U.S. Patent App. Pub. No. 2004/0230455 to <i>McKinney</i>
1021	U.S. Patent No. 5,950,150 to <i>Lloyd</i>
1022	<i>Shamsi, U.M., GIS Applications for Water, Wastewater, and Storm Water Systems</i> , CRC Press (2005)
1023	Complaint for Patent Infringement <i>with</i> Exhibits 1-3, Dkt. No. 1, in <i>Tegris, Inc. v. Brycer, LLC</i> , No. 22-cv-5741 (N.D. Ill.)
1024	Buildingreports.com from archive.org (Feb. 2005)
1025	U.S. Patent App. Pub. No. 2004/0267595 to <i>Woodings</i>
1026	<i>GIS Technology and Applications for Fire Service</i> , An ESRI White Paper (March 2006)
1027	Docket Sheet from <i>Tegris, Inc. v. Brycer, LLC</i> , No. 22-cv-5741 (N.D. Ill.), as of July 10, 2023

Exhibit No.	Description
1028	Federal Court Management Statistics—Profiles, Reporting Period March 31, 2023, <i>available at</i> https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_distpr ofile0331.2023.pdf
1029	Comparison of specifications for U.S. Patent Prov. App. No. 60/886,269 and application leading to U.S. Patent No. 11,126,966
1030	Compilation of Motion to Dismiss briefing in <i>Tegris, Inc. v. Brycer, LLC</i> , No. 22-cv-5741 (N.D. Ill.)
1031	U.S. Patent App. Pub. No. 2005/0149544 to <i>Bishop</i>
1032	U.S. Patent App. Pub. No. 2005/0075968 to <i>Apostolides</i>
1033	U.S. Patent App. Pub. No. 2006/0200453 to <i>Santrosyan</i>

LISTING OF CLAIMS

Element	Claim Language
Claim 8	
8pre	8. A computer-implemented method for using a fire hydrant management software and a web-based registry to track requisite inspection of an owned asset comprising:
8a	granting remote access to a web-based registry system, wherein the web-based registry is configured to run a fire hydrant management software, to at least three classes of user, wherein the three classes of user comprise: (1) an owner of an asset[,], (2) an approval authority[,], (3) an inspector
8b	retrieving, by a computer-based fire hydrant management software system, real time records of assets from a database, the database being accessible and augmentable by a classes of user;
8c	analyzing the records of assets from the database to identify notification events;
8d	based on the analysis, notifying an owner of an asset of a notification event, wherein the notice includes a standard format description of the type of inspection, and a cost associated with the type of inspection, and wherein the notification event comprises a designatable interval in advance of an impending deadline for the inspection, and wherein the owner of the asset, upon remotely accessing the fire hydrant management software compliance registry, may update and review the status of the assets;
8e	based upon the analysis, sending a standard format notice to the approval authority of the status of the assets assigned to the approval authority, and wherein the approval authority, upon accessing the web-based registry, may update and review the status of the assets assigned;
8f	upon logging on to a password controlled website configured to provide access to the fire hydrant management software, providing to an inspector the owner selects, the selection based upon a list of qualified inspectors that are available to inspect the asset based upon attributes including proximity to the asset, a web-based template configured to describe the asset an[d] each of the steps of the inspection;
8g	receiving from the inspector, inspection information in specific response to the web-based template;

Element	Claim Language
8h	storing in a database in association with the asset, the inspection information, wherein the inspection information is accessible to the users, and updating the database in association with the asset based upon the inspection information;
8i	transmitting to the approval authority, a standard format compliance report including noting compliance, wherein the compliance report includes, noting deficiencies in the asset and storing the noted deficiencies in association with the asset.
Claim 9	
9	The method of claim 8, wherein the storing further includes: storing, in association with the asset a new deadline date, based upon completion of the inspection.
Claim 10	
10	The method of claim 9 further comprising: receiving bids to perform a suitably compliant inspection of the asset from a group of qualified inspectors including, at least, the inspector; and presenting to the owner a compilation of the bids for selection of the inspector.
Claim 11	
11	The method of claim 10 further comprising: based upon the owner selecting the inspector, scheduling the inspector's inspection of the asset based upon the impending deadline, the inspector's availability, and the asset availability.
Claim 12	
12	The method of claim 8 wherein the compiling the report includes: receiving, from the inspector, photographs of the asset or components of the asset; and storing the photographs in association with the asset and the date of the inspection.
Claim 13	
13	The method of claim 8 wherein the noting the deficiencies further comprises: selecting a remedy deficiency deadline based upon the noted deficiency and the date of the inspection; and storing in association with the asset a remedy deficiency deadline.

Element	Claim Language
Claim 14	
14	The method of claim 13 further comprising receiving bids to perform a suitably compliant remedy of the deficiency from a group of qualified contractors; and presenting to the owner a compilation of the bids for selection of a contractor to remedy the deficiency.
Claim 15	
15	The method of claim 14 further comprising: based upon the owner selecting the contractor, scheduling the contractor to remedy the deficiency based upon the remedy deficiency deadline, the contractor's availability, and the asset availability.
Claim 16	
16	The method of claim 8 further comprising: compiling compliance report including the noted deficiency.

Brycer, LLC and Brycer Management, Inc. (together, “Petitioner”) request *inter partes* review of claims 8-16 of U.S. Patent No. 11,126,966 (EX1001, “the ’966 patent”), assigned to Tegriss, Inc. (“Patent Owner”). There is a reasonable likelihood Petitioner will prevail on at least one challenged claim.

I. Introduction

The ’966 patent is directed to a system and method for a web-based registry to track compliance of an owned asset. The claims are directed to a particular exemplary asset (a fire hydrant) but—consistent with the understanding of a POSA—the patent teaches in its Background section that fire hydrants are “a non[-]limiting example” and “it should be readily appreciated that any owned asset may be substituted for the fire hydrant.” The patent does not purport to invent any new computer, computer component or software, but instead teaches (and claims) the use of a conventional database and software to send, receive, and store information pertaining to asset inspection and compliance for various user classes (asset owners, inspectors, and approval authorities).

As explained below and in the declaration of Richard MacInnes (EX1003), there is nothing novel or non-obvious about the claimed methods of using management software and a registry to track asset inspections.

II. Mandatory Notices (37 C.F.R. §42.8)

A. Real Parties in Interest (37 C.F.R. §42.8(b)(1))

Brycer, LLC and Brycer Management, Inc. are the sole real parties in interest.

B. Related Matters (37 C.F.R. §42.8(b)(2))

The '966 patent has been asserted by Patent Owner against Petitioner in *Tegris, Inc. v. Brycer, LLC*, Case No. 6:22-cv-5741, pending in the U.S. District Court for the Northern District of Illinois.

C. Counsel and Service Information (37 C.F.R. §§42.8(b)(3)-(4))

Petitioner designates the following lead and back-up counsel:

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III. Requirements for *Inter Partes* Review (37 C.F.R. §42.104)

A. Grounds for Standing (37 C.F.R. §42.104(a))

Petitioner certifies that the '966 patent is available for IPR, and that Petitioner is not barred or estopped from requesting an IPR challenging the claims on the identified ground.

B. Identification of Challenge (37 C.F.R. §42.104(b)(1)-(2)) and Relief Requested (37 C.F.R. §42.22(a)(1))

Petitioner requests the Board institute IPR because the challenged claims are obvious under pre-AIA 35 U.S.C. §103 based on the following:

Ground	Prior Art	Claims Challenged
1	U.S. Patent App. Pub. No. 2002/0029222 (“Key”) in view of WO 2004/104891 (“Chauhan”), U.S. Patent App. Pub. No. 2005/0021449 (“Sweeney”), and U.S. Patent App. Pub. No. 2004/0230455 (“McKinney”)	8-16

IV. Relevant Information Concerning the Contested Patent

A. Overview of the '966 Patent

The '966 patent discloses a system and method “for using a web registry to track the inspection compliance of an owned asset including notifying an owner of an asset that an inspection is needed to comply with a code.” EX1001, 3:8-11.

The '966 patent teaches, in its Background, that there “are many assets that are owned around the world that require compliance with a code, local rule, state law, or federal law” and such compliance typically “requires a periodic inspection of the owned asset.” EX1001, 1:19-22. The '966 patent identifies numerous such assets (*e.g.*, boilers, amusement parks/rides, elevators, electrical systems, plumbing systems, fire hydrants, etc.), treating them interchangeably. EX1001, 1:22-38. The patent uses a fire hydrant as “a *non[-]limiting* example [of] an owned asset throughout the specification,” and notes that “it should be readily appreciated that *any* owned asset may be *substituted* for the fire hydrant.” EX1001, 1:34-38.¹

To implement its web-based registry, the patent relies on admittedly conventional computers and software, disclosing each as a generic black box. EX1001, 5:9-20 (describing “well-known computing systems, environments and/or configurations” that may be used), 5:1-8, 5:21-6:14, 7:24-64, FIGs. 1, 2, 3.

Figure 2, below, depicts “an exemplary computer network system 200” including “**electronic client device 210**, such as a personal computer or workstation, that is linked via a communication medium, such as a network 220 (*e.g.*, the Internet), to an electronic device or system, such as a **server 230.... [S]erver 230**

¹ Unless noted, all emphasis and coloring has been added.

may further be coupled, or otherwise have access, to a **database 240** and a computer system 260.” EX1001, 6:21-29. Although Figure 2 depicts one **server 230**, the patent notes that multiple servers may be used. EX1001, 6:29-33. “[I]n operation according to an embodiment of the invention, a user (not shown) of the **client device 210** desiring to use a web based compliance registry on a browser application running on the client device [accesses] web content served by the **server 230**.” EX1001, 6:51-55.

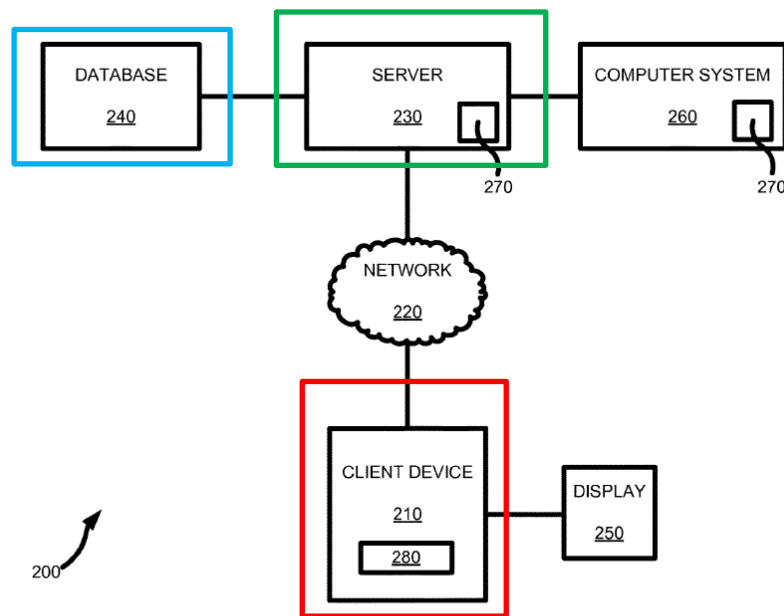


Fig. 2

B. Person of Ordinary Skill in the Art

Several factors may be considered in determining the qualifications of a person of ordinary skill in the art (“POSA”). M.P.E.P. §2141.03. Here, the level of skill is apparent from the cited art. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

Petitioner submits that a POSA would have had at least a B.S. in engineering or a related field, and would have had at least two years of experience designing and/or developing asset management and compliance systems for a regulated asset or system of assets. EX1003 ¶¶16-17, 27-29.²

This description is approximate—a higher education or skill level might make up for less experience, and vice-versa. EX1003 ¶29.

C. The '966 Patent's Priority Date

Patent Owner bears the burden of showing that each challenged claim is entitled to the priority date of its provisional applications. *See Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1324, 1326-27 (Fed. Cir. 2008); *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1304-05 (Fed. Cir. 2008); *see also Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1381 (Fed. Cir. 2015).³ This requires Patent Owner to show that any earlier applications contain adequate written description for the later-claimed invention, (*PowerOasis*, 522 F.3d at 1306-07), including that the disclosure in any earlier applications “describe[s] the claimed

² Declaration of Richard MacInnes, an expert in asset management and compliance systems for regulated assets and systems of assets. EX1003 ¶¶8-16; EX1004, 1-5.

³ Petitioner has established a *prima facie* case of invalidity in this Petition.

invention with *all* its limitations,” (*Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1158 (Fed. Cir. 1998)). *See also Novozymes A/S v. DuPont Nutrition Biosciences APS*, 723 F.3d 1336, 1344-46 (Fed. Cir. 2013) (claims not entitled to provisional date where provisional failed to provide written description support). The inquiry requires an analysis of the actual disclosure in the application *itself*; that an earlier application may render obvious the later-claimed invention “is not sufficient to meet the written description requirement.” *Tronzo*, 156 F.3d at 1158; *see also Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997).

Here, the ’966 patent identifies on its face six provisional applications:

Exhibit	App. No.	Filing Date
1009	60/886,269	1/23/2007
1010	60/977,870	10/5/2007
1011	60/981,091	10/18/2007
1012	60/981,784	10/22/2007
1013	60/969,905	9/4/2007
1014	60/981,782	10/22/2007

EX1001, Cover. The ’966 patent purportedly claims priority to the first four provisional applications (EX1009-EX1012) and “incorporates ... by reference” the other two (EX1013-EX1014). EX1001, 1:7-15.

Because Petitioner’s prior art pre-dates the earliest provisional—with the sole potential exception being state-of-the-art background reference, *Campion* (filed

January 30, 2007, EX1007)⁴—Petitioner focuses on the '269 Provisional (filed January 23, 2007).

The '269 Provisional includes a basic description of its proposed registry and various applications of the same, but no figures. EX1009, 19-37; EX1003 ¶¶54-59. It lacks much of the '966 patent's description. EX1029 (comparing specifications of '269 Provisional and application leading to '966 patent); EX1003 ¶59.

Importantly, the '269 Provisional lacks numerous requirements found in the challenged claims, including, *e.g.*: (i) real-time asset record retrieval; (ii) analysis of the records to determine notification events; (iii) based on that analysis, notifying the owner with a notice including a standard format description of an inspection type and cost; (iv) a standard format notice sent to the approval authority based on the record analysis; (v) owner-selected inspector; (vi) that such selection is from a list of qualified inspectors based on attributes including proximity to the asset; (vii) a web-based template configured to describe the asset and each of the steps of the inspection; and (viii) a standard format compliance report including noting

⁴ Regardless of whether *Campion* pre-dates the claimed invention, the challenged claims are still obvious in view of the other references, as shown herein. *See also* EX1003 ¶94.

compliance and noting deficiencies in the asset that is transmitted to the approval authority. *See* EX1009, 19-37; EX1003 ¶¶53-60. Indeed, the '269 Provisional has no disclosure or support for at least claim limitations [8b], [8c], [8d], [8e], [8f], [8g], [8h], and [8i] in independent claim 8 of the '966 patent (and thus dependent claims 9-16). EX1003 ¶¶53, 60.

In short: the '269 Provisional fails to disclose any support for basically every claim limitation, and thus claims 8-16 are not entitled to the '269 Provisional's filing date.

Similarly, an analysis of the other provisional applications to which the '966 patent claims priority (EX1010-EX1012) reveals that claims 8-16 are not entitled to the filing date of any provisional application, all of which are missing numerous (and in some cases, all) limitations of claims 8-16. EX1003 ¶¶61-64. The same is true for the provisional applications only incorporated by reference (EX1013-EX1014).

D. Claim Construction (37 C.F.R. §42.104(b)(3))

This Petition construes terms consistent with the understanding a POSA would have had at the time of the invention. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005). Only terms subject to a legitimate dispute relevant to the invalidity issues in this IPR need to be construed here. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017); *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

As shown herein, the prior art teaches and renders obvious the challenged claims under any reasonable construction. Any implicit constructions derived from Petitioner’s analysis of the prior art are for the purposes of this IPR only, and may be based in-part on Patent Owner’s infringement allegations.

V. The Specific Grounds of Unpatentability

As evidenced by the prior art and the declaration of Richard MacInnes (EX1003), there was nothing new or novel about the claimed computer-implemented method for using asset management software and a web-based registry to track requisite inspection of an owned asset.

A. Exemplary Prior Art and State of the Art

The below provides an overview of certain exemplary prior art; additional such art is discussed in Section V.B.

1. Key

U.S. Patent App. Pub. No. 2002/0029222 (“Key”) published March 7, 2002. EX1005. It is prior art under §102(b).

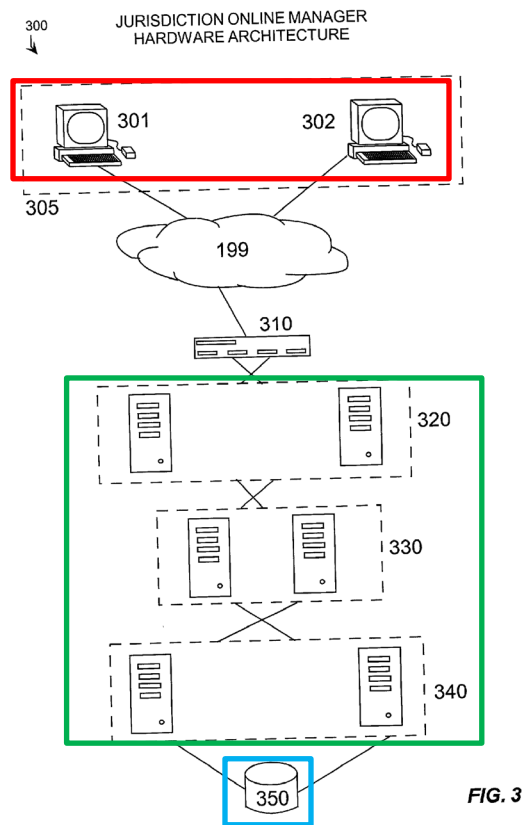
Key discloses “a *jurisdiction online management system* that manages required inspections mandated by a plurality of different jurisdictions performed by non-governmental entities.” EX1005, [0002]. “The system provides an *efficient, centralized, and web enabled process* for transfer of data between multiple jurisdictions and multiple entities required to routinely interact with the multiple jurisdictions,” where the “system manages required inspections mandated by [the]

jurisdictions performed by non-governmental entities.” EX1005, [0015]. The system “provides a hierarchical data structure that allows for easy updates” and “enables *real time* availability of current data.” EX1005, [0017]. According to Key, the system is applicable to a variety of assets, including “pressure vessels, boilers, elevators, amusement park rides, and *other required jurisdictional inspections of objects.*” EX1005, [0015]. Key notes that “objects 150” (such as pressure vessels and boilers) “can be dangerous if they are not properly maintained and operated.” EX1005, [0046].

Like the ’966 patent, Key discloses different classes of users, including asset owners, authorized inspectors, and approval authorities (such as the “controlling jurisdiction”). EX1005, [0016]-[0020], [0053].

In Figure 3, below, Key discloses a “hardware architecture” (similar to Figure 2 of the ’966 patent). **Client computers 305** “run web browsing applications that retrieve and display the [JOM’s] web pages” which are “retrieve[d] ... over a global computer network 199 such as the Internet” by “mak[ing] a request over Internet 199 to a **web server 320**,” which are “operative to implement the front-end software” to “display information to users operating a web browser” and “provide notifications in a known manner usually via email.” EX1005, [0065]-[0067]. **Application servers 330**, coupled to **web servers 320** and **database servers 340**, are “operative to implement the application software” which “contains the logic that

is used to determine which web pages are presented to the user and how respond to user's actions,” “contains the necessary logic to process the user's transaction and provide the associated updates and any notifications,” and are described “in greater detail” in Figure 4. EX1005, [0068]. **Database servers 340** are “operative to store and retrieve information from a **database 350**.” EX1005, [0069].



In Figure 4, below, Key discloses a “software architecture” including a web interface 410 with various interfaces and “provides access for the insurance company inspectors 135, jurisdiction reviewers 125, and owners of the objects via a web browser.” EX1005, [0070]. Notification system 414 “send[s] communications to users,” *e.g.*, by email. EX1005, [0071]. Inspection unit 430 “respond[s] to

communications, typically via a web browser, for the purpose of accepting or providing inspection information” after a user (e.g., inspector) is authorized. EX1005, [0074]. Inspection information includes inspection data, including date, status, offending condition, comments, etc. EX1005, [0074]. Accounting unit 435 also responds to communications, and accepts, provides, and displays accounting information such as invoice amounts. EX1005, [0075]. The various data is stored in **database 350** “organized logically in conventional data files in the known manner.” EX1005, [0104], [0069], FIG. 7.

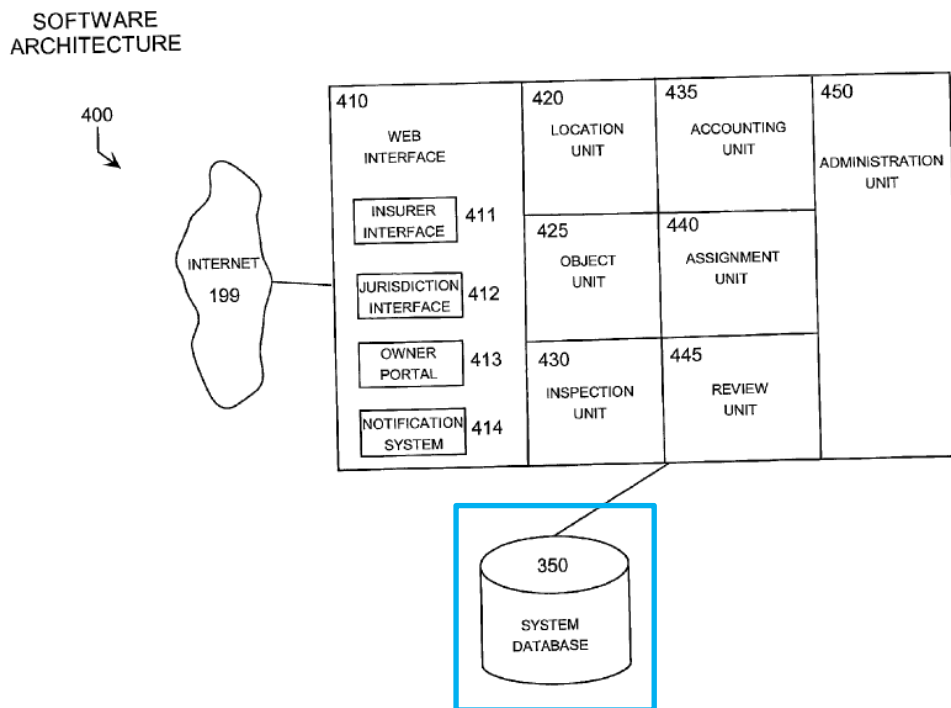
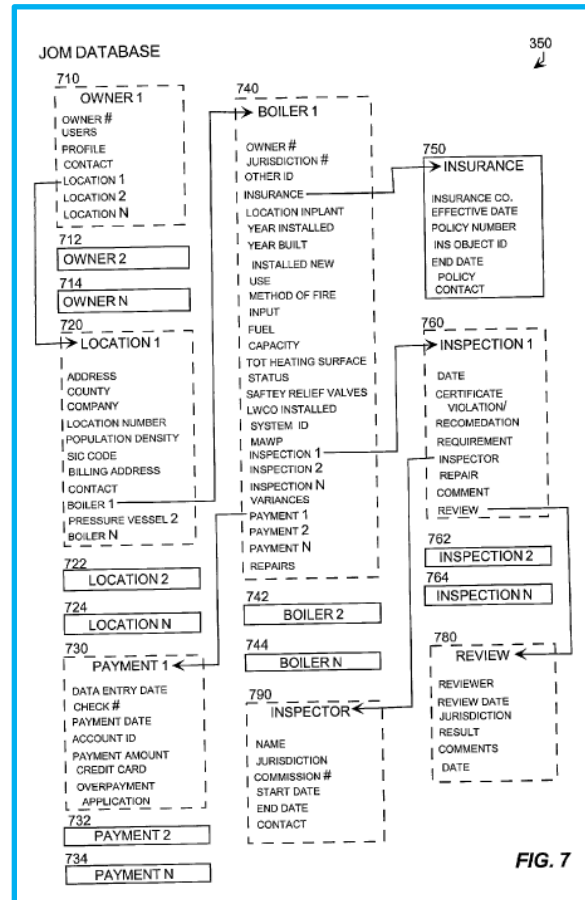


FIG. 4

Key’s data stored in **database 350** “in the known manner” is shown below in Figure 7, including relevant information regarding the assets, owners, inspections, and jurisdiction review. EX1005, [0104]-[0114].



2. Chauhan

WO 2004/104891 (“Chauhan”) published December 2, 2004. EX1016. It is prior art under §102(b).

Chauhan “generally relates to an automated management system for managing data, outage repair, load switching, job workflow and crew dispatching, crew workflow, installation, maintenance and restoration of utility services by integrating geographic information systems (GIS) data with many other data sources so as to gather, transform, manipulate, analyze, and produce desired information for continuously supplying utility and relevant services.” EX1016, [0001]. Chauhan

discloses entering of inspection data such as for the purpose of “code violations.” EX1016, [0001].

Chauhan discloses a “UtilityCenter™ [that] is an integrated GIS suite of applications that manages information across the entire utility” and with “[t]he primary data ... stored in a Microsoft SQL Server® database” as known in the art, (EX1016, [0039]-[0042], FIG. 1, below), including “*fire hydrant inspections* ... with UtilityCenter” and a “HYDRANT Theme” that allows an inspector “edit and view inspection fields,” (EX1016, [0207]). Beyond fire hydrants, Chauhan discloses that its UtilityCenter has wide applicability and that the “same technology” can be used for “electric transmission and distribution utilities,” as well as “fire and police departments, zoning and planning commissions, ... gas pipeline and distribution utilities, water distribution utilities & wastewater utilities, broadband telecom providers, real property tax assessment, municipal zoning and planning, ... Department of Energy utility applications, and other local, state and federal government agencies.” EX1016, [0218], [0042] (various “utility themes”).

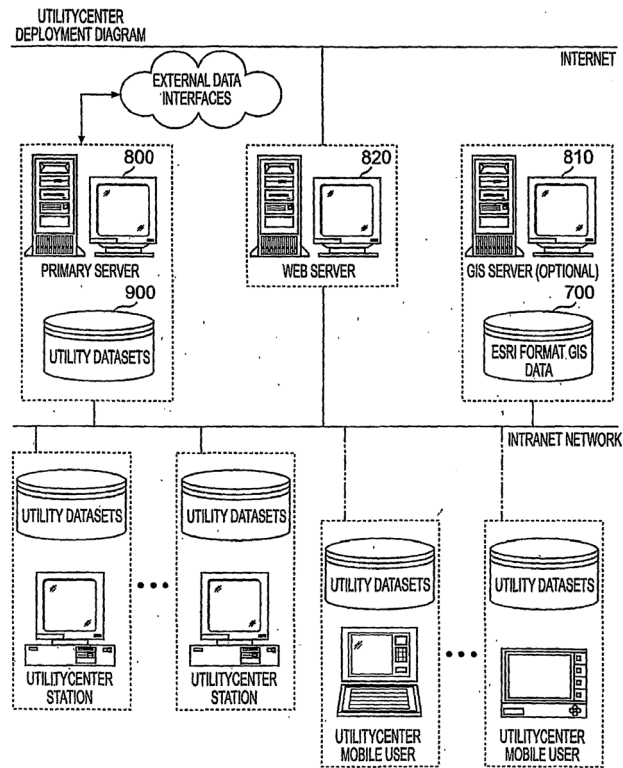


FIG. 1

3. *Sweeney*

U.S. Patent App. Pub. No. 2005/0021449 (“Sweeney”) published January 27, 2005. EX1006. It is prior art under §102(b).

Sweeney discloses “methods and systems for online management of construction assets.” EX1006, [0007], [0002]. Sweeney further discloses that an “asset owner/manager may log in to a secure portion of a website to reach a web page containing the asset owner’s information” and may, *e.g.*, view “inspection reports.” EX1006, [0040]-[0041]. A report may be generated that “relate[s] to one or more of the plurality of the construction assets and be generated according to at

least one of age of the construction asset, a rated condition of the construction asset, a type of the construction asset, recommended repairs listed on the inspection report[], date of construction, date of last repair, expected remaining lifetime of the construction asset, contractors responsible for construction of or repairs to the construction asset, a location of the construction asset, repair history, repair type, repair costs, defect history, and the like.” EX1006, [0042], [0007]-[0008].

Sweeney, like the other references in the field, discloses to store data in a typical database—such as inspection reports detailing information regarding the inspection, bid information, and project reports—as shown in Figure 2:

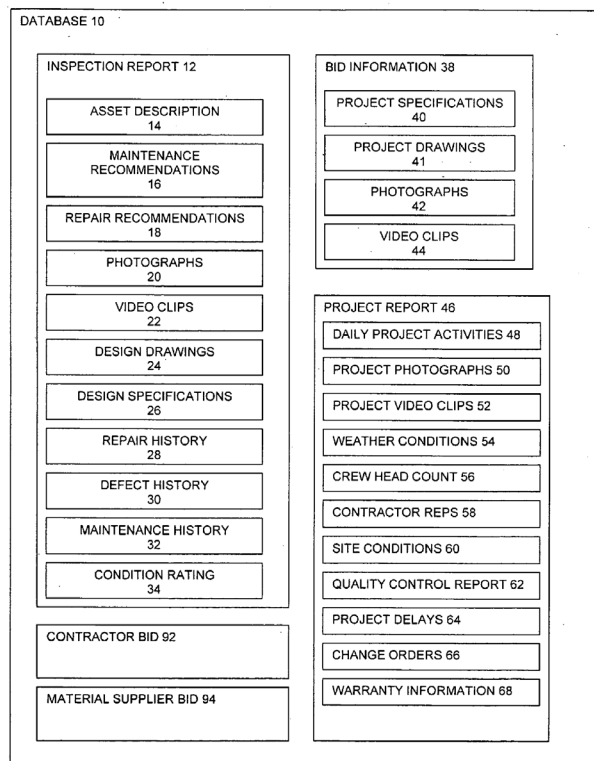


FIG. 2

4. *McKinney*

U.S. Patent App. Pub. No. 2004/0230455 (“McKinney”) published November 18, 2004. EX1020. It is prior art under §102(b).

McKinney “relates generally to monitoring systems and, in a presently preferred embodiment, provides a system and method for servicing and for verifying compliance related to maintenance, operation, inspection, repair, and/or service contract renewal status of environmental equipment such as wastewater treatment systems.” EX1020, [0003]. McKinney discloses that its system “may provide an electronic regulatory compliance method for one or a plurality of environmental equipment systems” that may have “a plurality of different owners,” where the assets must comply with certain regulations. EX1020, [0032], [0044]-[0045]. McKinney further discloses a web-based system operating over the Internet, (EX1020, [0023], [0029], [0050]-[0053]) as well as “form letters” provided to, *e.g.*, the owner, scheduling of inspections, and monitoring by the regulatory agency, (EX1020, [0057]-[0059]).

5. *Campion*

U.S. Patent No. 7,649,450 (“Campion”) was filed January 30, 2007, issued January 19, 2010, and identifies as a related provisional filed October 5, 2006. EX1007; EX1008. It is prior art under §102(e).

Campion “relates generally to authenticated testing of life-safety equipment such as smoke detector, fire alarm, and sprinkler systems and more particularly, to providing an authenticated test report and other authenticated test related and monitoring related metrics for a life-safety equipment, such as a fire alarm control panel for facilitating on-site walkabout testing, inspection, installation, servicing, and control of fire alarm systems.” EX1007, 1:18-25. Campion notes the existence of, and importance of complying with, jurisdictional codes and ordinances such as the New Jersey State Fire Prevention Code derived from the Uniform Fire Code published by the National Fire Protection Association (“NFPA”). EX1007, 1:27-2:33. Per Campion, “life safety equipment is mandated to be serviced, tested, and inspected at regular intervals as dictated by applicable codes and standards in a given jurisdiction.” EX1007, 1:38-40.

As with the '966 patent and other prior art, Campion discloses a conventional client-server system, as depicted in Figure 5, below, including (i) **web server 530** to retrieve and store data and display specific questions during an inspection, (ii) **data server 520** for data storage, and (iii) **multiple devices 532-535** such as workstations, laptops, etc. EX1007, 6:57-7:28, 9:8-25. “Workstations can also be used to schedule inspections due over the course of coming time for periods as required, to set dates for required inspection and receive reminders of inspections due and the like.” EX1007, 9:37-41.

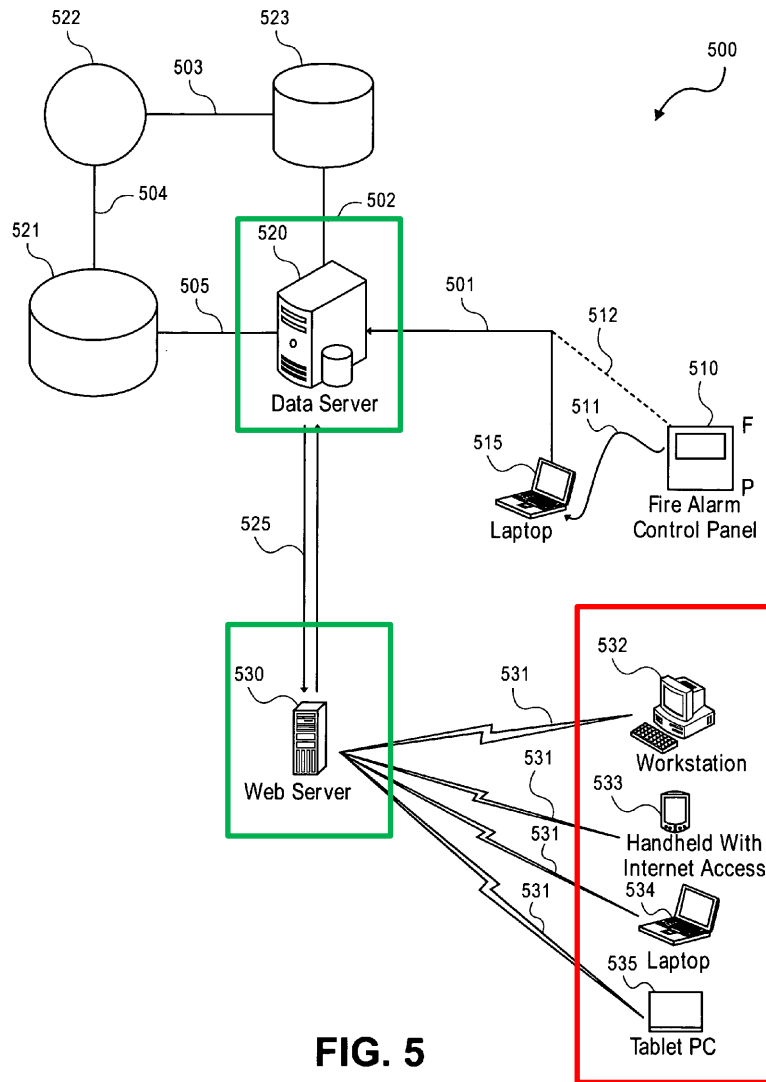


FIG. 5

6. *Lloyd'150*

U.S. Patent No. 5,950,150 (“Lloyd’150”) issued September 7, 1999. EX1021.

It is prior art under §102(b).

Lloyd’150 discloses a “system and method for operational compliance verification of fire/life system systems and components whose operations, maintenance and testing are established by predetermined operational criteria, such

as industry standards and fire/life safety codes” including providing “reports ... to the owner, insurer, or management company at any time” such as “on a scheduled basis” of system/components conditions, testing and needed maintenance. EX1021, Abstract, 21:23-22:13. Lloyd’150 discloses various known fire/life safety systems and components requiring compliance verification such as fire pump systems, sprinkler systems, fire pressure maintenance systems, fire detection/alarm systems, smoke evacuation systems, heating and ventilation shutdown systems, elevator recall systems, fire door open/close systems, and cross-over to emergency (back-up) power systems. EX1021, 1:32-52, 2:28-58, 5:56-6:26; *see also* 1:9-2:24, 7:24-42.

B. Ground 1: Key, Chauhan, Sweeney and McKinney Render Obvious Claims 8-16

As explained below, the combination of Key, Chauhan, Sweeney and McKinney renders obvious claims 8-16. None of these references were disclosed during prosecution of the ’966 patent. *See* EX1001 (“References Cited”).

1. Obviousness of Combining Key, Chauhan, Sweeney, and McKinney

Key, Chauhan, Sweeney and McKinney are complementary references that are all in the field of asset management, monitoring, and compliance (including, *e.g.*, inspection, repairs, scheduling, and notices) implemented as online, web-based systems and methods using conventional computers, software, and databases. EX1003 ¶¶106, 109-121; §V.A.

The prior art teaches the claimed configurations, and a POSA would have found the claims obvious. Indeed, as shown herein, it was well known and obvious to a POSA, for example: (i) to provide a web-based asset management system and method for monitoring and inspecting for compliance various assets (such as fire hydrants, boilers, pressure vessels, elevators, sprinkler systems, amusement parks, fire pumps, construction assets, utilities, etc.); (ii) that the system and method provides controlled access for viewing and data entry (*e.g.*, via a username and password), including updating status, to various user classes (including asset owners, asset inspectors and jurisdictional/authority reviewers/approvers); (iii) that the data for each asset is stored in a centralized database and accessible in real time; (iv) that the system and method provides relevant standard notices and reports to the various users including, *e.g.*, notifying the owner of upcoming inspections and deadlines and the approval authority of inspection status and compliance or violations; (v) that the owner can select particular qualified/certified inspectors within the particular jurisdiction in which the asset resides; (vi) that the system and method provides inspection templates to guide the inspector through the asset-inspection process resulting in an inspection report provided to the jurisdictional/authority reviewers/approvers for review including with any code violations; and (vii) that the system and method should provide compliance reporting and management

throughout the entire life cycle to all relevant stakeholders. EX1003 ¶107; §§V.A, V.B.2-8.

Key, for example, discloses a jurisdiction online manager that enables interaction among asset owners, inspectors, and authorized authorities to ensure asset compliance (inspections, scheduling, review, repairs, etc.); and Chauhan, Sweeney and McKinney each add trivial, routine, and obvious functionality when combined with and applied to the system of Key (such as particular notices and formats and inclusion of particular information in such notices) that would readily, easily, and advantageously apply to Key's system (such as storing relevant information in Key's database and providing such information as part of a form notice). EX1003 ¶¶104, 122-139; §§V.A, V.B.2-8.

More particularly, Key discloses “an efficient, centralized, web enabled process” that “manages required inspections mandated by a plurality of different jurisdictions performed by non-governmental entities” that is “applicable to pressure vessels, boilers, elevators, amusement park rides, and *other required jurisdictional inspections of objects*” owned by an owner. EX1005, [0015], [0075], [0104]-[0105]; EX1003 ¶¶77-78, 124-126. Key discloses “a *central* staging database for data” where the “central system enables *real time* availability of current data” and “*complete historical information* about the stored objects ... available online.” EX1005, [0016]-[0017], [0069], [0104]-[0114], FIG. 7; EX1003 ¶¶78, 110. Key

discloses that its processes are “carried out ... by software executing in computers” and various servers (web servers, application servers) running front-end and application software that operate to provide inspection tracking and management including a web interface. EX1005, [0063], [0067]-[0070], FIG. 4; §V.A.1; EX1003 ¶¶80-81, 147.

Although Key does not expressly disclose “fire hydrants” as one of various owned assets, it discloses that its system and method are to be used with various objects such as boilers, elevators, amusement park rides, etc., as well as “*other required jurisdictional inspection of objects*,” and, recognizes that objects “can be dangerous if they are not properly maintained and operated.” EX1005, [0015], [0046]; EX1003 ¶¶124-125, 77-78. As explained here and further below, a POSA would have found it obvious to apply Key’s system and method to manage fire hydrant inspections, another object for which jurisdictional inspection is required including because of the known application, need, desirability, and corresponding interchangeability of various assets to be monitored and inspected for compliance. EX1003 ¶¶126-139.

For example, Chauhan discloses a “UtilityCenterTM [that] is an integrated GIS [geographic information system] suite of applications that manages information across the entire utility” (EX1016, [0039]-[0042], FIG. 1; EX1003 ¶¶84-86, 128-129), including “*fire hydrant* inspections ... with UtilityCenter” and a “*HYDRANT*

Theme” that allows an inspector to “edit and view inspection fields,” (EX1016, [0207]; EX1003 ¶¶85, 127). As was well known in the art, Chauhan discloses that its UtilityCenter has wide applicability and that the “*same technology*” can be used for various other assets and applications including “electric transmission and distribution utilities,” as well as “fire and police departments, zoning and planning commissions, ... gas pipeline and distribution utilities, water distribution utilities & wastewater utilities, broadband telecom providers, real property tax assessment, municipal zoning and planning, ... Department of Energy utility applications, and other local, state and federal government agencies.” EX1016, [0218], [0042] (“utility themes”); EX1003 ¶¶114-115, 130.

Moreover, the prior art demonstrates that (i) there was a well-known need and desirability to monitor and inspect various assets to ensure compliance and proper operation, (ii) the need included to improve the monitoring/inspection process through use of web-based computer systems and databases thereby becoming more efficient and less costly, and (iii) such assets were interchangeable within inspection compliance monitoring and reporting systems (including assets for which inspection compliance was regulated, including life/safety and non-life/safety assets). EX1003 ¶¶131-138; EX1005, [0015] (pressure vessels, boilers, elevators, amusement park rides, etc.); EX1006, [0002] (Sweeney disclosing construction assets); EX1007, 1:18-2:33 (Campion disclosing life safety equipment, *e.g.*, smoke detectors, fire

alarms and sprinkle systems “and the like”); EX1015, Abstract, 1:24-59, 4:44-52, 5:37-6:29, 16:66-17:40, 19:58-65 (water-based fire protection systems); EX1016, [0001], [0207], [0218] (Chauhan disclosing fire hydrants, gas pipeline, wastewater, energy, etc.); EX1017, [0001], [0009] (parking meters); EX1018, [0030] (oil and gas wells); EX1019, [0008]-[0020], [0029], [0045]-[0046] (natural gas “and many other areas”); EX1020, [0003], [0011] (McKinney disclosing environmental equipment, *e.g.*, wastewater treatment); EX1021, Abstract, 1:9-2:58, 5:56-6:26 (fire/life safety systems and components); EX1022, 304-305 (meter, fire hydrant, valves); EX1026, 17-18 (fire hydrants).

As another example demonstrating the obviousness of applying Key’s teachings to fire/life safety systems, Lloyd’150 discloses a “system and method for operational compliance verification of fire/life system systems and components whose operations, maintenance and testing are established by predetermined criteria, such as industry standards and fire/life safety codes,” including providing “reports to the owner, insurer, or management company at any time” such as “on a scheduled basis” of system/components conditions, testing and needed maintenance. EX1021, Abstract, 21:23-22:13; EX1003 ¶137. Per Lloyd’150, among the known fire/life safety systems/components for which compliance verification was needed were fire pump systems, fire pressure maintenance systems, fire detection/alarm systems, smoke evacuation systems, elevator recall systems, fire door open/close systems,

and cross-over to emergency (back-up) power systems, etc. EX1021, 1:32-52, 2:28-58, 5:56-6:26; EX1003 ¶137.

Lloyd’150 demonstrates the need and desirability—as was well known in the art—to ensure compliance through monitoring, testing and reporting of various fire/life safety systems: (i) it recognized that “[t]here is a need for such a [fire/life safety] system to verify compliance of the entire fire/life safety system, particular with respect to operational criteria such as fire/life safety codes and associated industry standards,” (ii) it noted known National Fire Protection Association (“NFPA”) standard and codes, among others, including testing and maintenance required to be performed at set intervals, (iii) it recognized that “full compliance with these standards/codes is paramount to ensure that in the event of a fire, water-based fire protection systems perform as designed,” and (iv) it recognized that “there is a need for a system and method capable of notifying insurers, property management companies, building/structure owners or other interested parties of any discrepancies or deviations in the preparedness of fire/life safety systems,” and that “[s]uch a system and method will bring about more strict code compliance, through improved testing and maintenance practices, so that reliability of fire/life safety systems will be greatly increased.” EX1021, 1:9-2:24, 7:24-42, 7:1-6; EX1003 ¶138. Such need and desirability is likewise shown in *Campion*. EX1007, 1:18-2:33; EX1003 ¶¶96, 138.

That a POSA would have found it obvious and routine to apply Key’s system and process to fire hydrants is further evidenced by the ’966 patent’s admissions in its Background of jurisdictionally required inspections including “boilers,” “elevators,” “amusement parks/rides,” and other objects requiring inspection such as “fire hydrant[s],” and that various known “owned assets” are interchangeable with each other. EX1001, 1:19-39; EX1010, 8 [0003]; EX1003 ¶139. *See Qualcomm Inc. v. Apple Inc.*, 24 F.4th 1367, 1375-76 (Fed. Cir. 2022) (“Admissions in the specification regarding the prior art are **binding** on the patentee for purposes of a later inquiry into obviousness.”) (quoting *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1362 (Fed. Cir. 2007)); *Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1339 (Fed. Cir. 2020); *McCoy v. Heal Sys., LLC*, 850 F. App’x 785, 789 (Fed. Cir. 2021).

A POSA would have understood that there was nothing new or inventive about the particular asset to be tracked, nor does the ’966 patent purport there is, instead noting—just like in Key and the other prior art discussed above—that a fire hydrant is a “**non[-]limiting** example” and “it should be readily appreciated **any owned asset may be substituted** for the fire hydrant.” EX1001, 1:34-39; EX1003 ¶¶124-139.

Further evidence of the obvious of combining the references is discussed above and below.

2. Claim 8

[8pre] A computer-implemented method for using a fire hydrant management software and a web-based registry to track requisite inspection of an owned asset comprising:

Regardless of whether the preamble is limiting, as explained in Section V.B.1 and below regarding steps [8a]-[8i], the combination of Key, Chauhan, Sweeney and McKinney discloses and renders obvious the claimed computer-implemented method with claimed steps. EX1003 ¶¶142-148; *see also* §V.B.1; steps [8a]-[8i].

[8a] granting remote access to a web-based registry system, wherein the web-based registry is configured to run a fire hydrant management software, to at least three classes of user, wherein the three classes of user comprise: (1) an owner of an asset[,], (2) an approval authority[,], (3) an inspector

Key alone or in combination with Chauhan discloses, or it would have been obvious to include as part of Key, step [8a]. EX1003 ¶¶149-157.

Key discloses a jurisdiction online management system 100 that includes a jurisdiction online manager (“JOM”) 110. EX1005, [0045], FIG. 1 (JOM system), FIG. 3 (JOM hardware architecture), FIG. 4 (JOM software architecture); EX1003 ¶151. JOM 110, among other things, “stores object data, schedules inspections, provides the appropriate jurisdiction forms, accepts inspection data, provides inspection and repair data for jurisdictional review, accepts repair information, accepts payment, provides inspection certificates, and provides other functions which facilitate the boiler and pressure vessel inspection process.” EX1005, [0045];

EX1003 ¶151. The JOM “system provides an efficient, centralized, and web-enabled process for the transfer of data between multiple jurisdictions and multiple entities required to routinely interact with the multiple jurisdictions” and “manages required inspections mandated by a plurality of different jurisdictions by non-governmental entities.” EX1005, [0015]; EX1003 ¶152.

Figure 3, below, depicts “the principal hardware components of the JOM 110 includ[ing] a tiered application architecture to distribute different applications components over different computers.” EX1005, [0064], [0056], FIG. 3; EX1003 ¶¶153-155. “[T]he system is constructed utilizing Internet-enabled computer systems with computer programs designed to carry out the [described] functions” which “computer programs are executed on computer systems constructed as described in reference to FIG. 3.” EX1005, [0056], [0057]-[0058] (using known distributing computing environment, client/server and “conventional computer components”); EX1003 ¶79.

In Figure 3, **client computers 305** (which may be, *e.g.*, inspector and reviewer computers) “run web browsing applications that retrieve and display the [JOM’s] web pages” which are “retrieve[d] ... over a global computer network 199 such as the Internet” by “mak[ing] a request over Internet 199 to a **web server 320**.” EX1005, [0065]; EX1003 ¶155. Key discloses (i) **web servers 320** “operative to implement the *front-end software*” to “display information to users operating a web

browser” and “provide notifications in a known manner usually via email” (ii) **application servers 330**, coupled to **web servers 320** and **database servers 340**, are “operative to implement the *application software*” which “contains the logic that is used to determine which web pages are presented to the user and how respond to the user’s actions,” “contains the necessary logic necessary to process the user’s transaction and provide the associated updates and any notifications” and are described “in greater detail” in Figure 4, and (iii) **database servers 340** “operative to store and retrieve information from a **database 350**.” EX1005, [0065]-[0069], FIG. 3, FIG. 7 (detailing database and information stored therein); EX1003 ¶¶155, 80, 82. Key describes that its database as “a central staging database for data” where both real-time and “complete historical information” are stored (*e.g.*, centralized across the multiple jurisdictions) such that there is a “common interface and programs” and common “user interface.” EX1005, [0016]-[0017]; EX1003 ¶155.

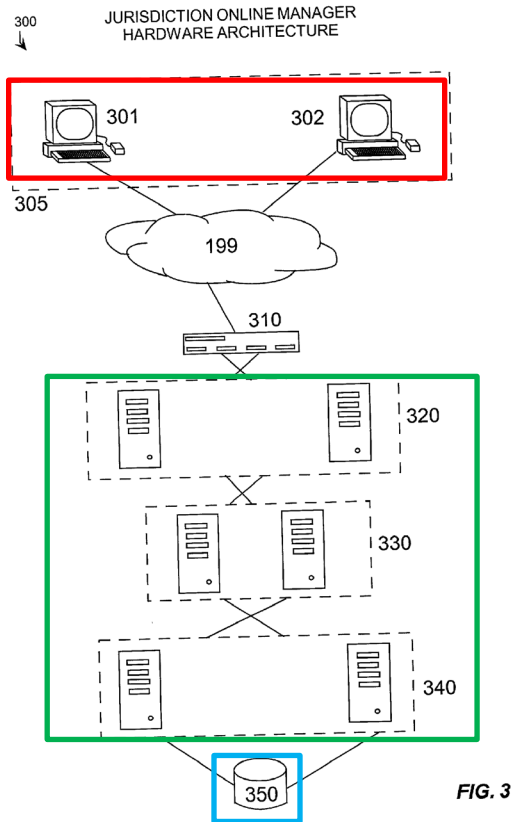


Figure 4, below, “illustrates the principal software units or components of the JOM 110” including a “web interface” that provides remote “access” “via a web browser” to various classes of users including (1) “owners of the objects” (the claimed “owner of an asset”); (2) “jurisdiction reviewers” or “authority” of a “regulatory entity” that reviews and approves of the inspection (the claimed “approval authority”); and (3) “inspectors” (the claimed “inspector”). EX1005, [0070], [0047]-[0048], [0076]-[0077], FIG. 4; §V.A.1 (discussing Key); EX1003 ¶¶156, 81.

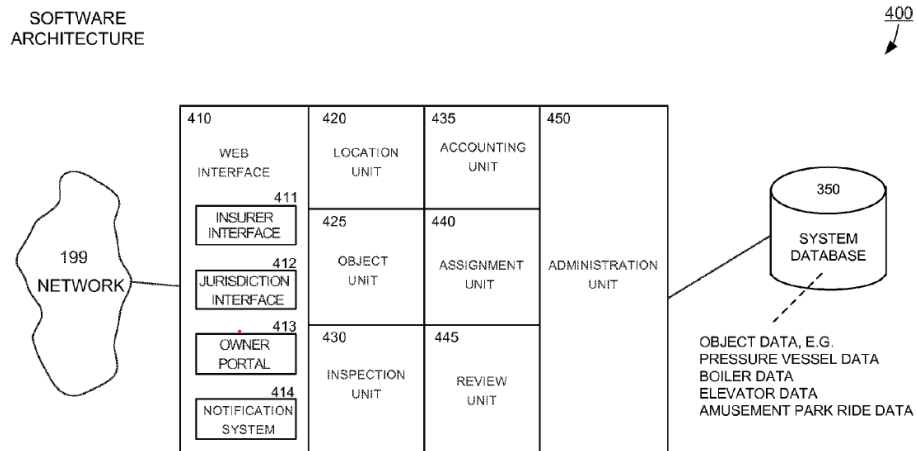


FIG. 4

Key discloses that granting of such remote access to the various users (including owners, reviewers, and inspectors) is predicated on the user having proper authority, *e.g.*, by entering “a user[]name and associated password or other security information.” EX1005, [0106], [0078] (administrator can determine user “setting and permissions”), [0115]-[0123] (permission process including entering “username and password” to access to various “units” of Figure 4 whereby access is predicated on user type and authorization), FIG. 8 (depicting process for same); EX1003 ¶157.

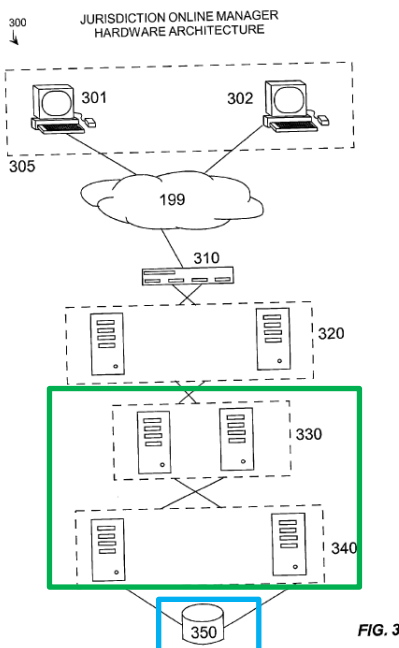
And, as discussed in Section V.B.1, it would have been obvious that the asset could be a fire hydrant. *See also* EX1003 ¶¶150, 124-139.

[8b] retrieving, by a computer-based fire hydrant management software system, real time records of assets from a database, the database being accessible and augmentable by a classes of user;

Key alone or in combination with Chauhan discloses, or it would have been obvious to include as part of Key, step [8b]. EX1003 ¶¶158-164.

Key discloses “a central staging database for data” such as database 350. EX1005, [0016]-[0019], FIG. 3, FIG. 7 (depicting database 350); EX1003 ¶¶160, 78. Per Key, the “centralized system provides a hierarchical data structure that allows for easy updates and reverse delta storage” and “enables *real time* availability of current data” as well as “*complete historical information* about the stored objects [to] be available online.” EX1005, [0017]; EX1003 ¶¶161, 78. Indeed, prior to the ’966 patent, it was commonplace in asset management and compliance systems to provide real-time access to database records by a computer-based software system. EX1003 ¶161; EX1019, [0078]; EX1020, [0073]; EX1016, [0003], [0060], [0064], [0215]; EX1017, [0038]; EX1018, [0007]. And, regardless, the ’966 patent does not disclose any detail regarding the retrieval, by a software system, of real-time asset records from a database outside of the claims, and so Patent Owner cannot credibly argue that there is anything inventive to this claimed step. *See Trustees of Columbia Univ. in the City of New York v. Illumina, Inc.*, 620 F. App’x 916, 933 (Fed. Cir. 2015); *see also Streck, Inc. v. Research & Diagnostics Sys.*, 665 F.3d 1269, 1288 (Fed. Cir. 2012).

Figure 3, below, shows “**database servers 340** ... operative to store and retrieve information from **database 350**” and “coupled to the **application servers 330**” which run the application software. EX1005, [0069], [0104]-[0105], FIG. 7 (depicting “a data file structure of information stored in the JOM database structure”); step [8a] & §V.A.1 (discussing Key’s servers); EX1003 ¶162. The “[i]nformation stored in the database 350 *can be retrieved* for data manipulation and reporting” (which a POSA would understand to include the real-time and complete historical records stored in the database). EX1005, [0105], FIG. 7; EX1003 ¶162.



Key further discloses JOM software (e.g., as in Figure 4, described regarding step [8a] above and depicted below) that, when executed, carries out the various disclosed functions and processes in Key, including retrieving from the database (e.g., database 350) various data such as the real-time asset records. EX1005, [0063],

[0017]-[0018], [0067]-[0069], [0079], [0104]-[0105], FIGs. 4, 5, 6, 7; EX1003 ¶163. Key also notes, for example, that “[t]he drawing figures starting with FIG. 4 illustrate the various functions, processes or routines carried out by an embodiment of the present invention in which the disclosed jurisdiction online management system 100 carries out the functions described in connection with the flow charts and database maintenance” and that “[t]he functions or processes in these figures are carried out ... by software executing in computers associated with the jurisdiction reviewers 125, insurance company inspectors 135 and the [JOM] 110.” EX1005, [0063]; EX1003 ¶¶146, 163. And, as discussed in step [8a], Key likewise discloses that (i) web server 320 and application server 330 contain front-end and application software, respectively, where the application software is discussed in connection with Figure 4; and (ii) database server 340 communicates with database 350 wherein the records is stored. *See* step [8a]; EX1005, [0065]-[0070], FIG. 4; EX1003 ¶¶163, 80, 147, 155.

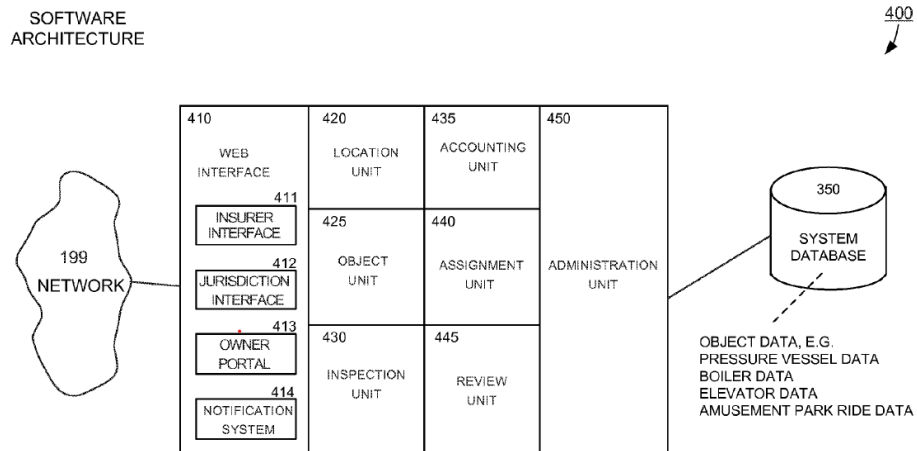


FIG. 4

Regardless of whether the claimed “a classes of user” means all three claimed classes or only a single class of user,⁵ Key discloses that each of the various classes of users can access and update and add to (augment) the database and information contained therein, *e.g.*, “the inspector” can “input the inspection information.” EX1005, [0088], FIG. 5, [0061] (“These steps generally require manipulations of

⁵ Patent Owner, in its district court infringement assertion, appears to assert that this limitation may be met by a single class of user. EX1023, 61-62 (identifying only “The City”), 57-59 (Patent Owner asserting “The City” corresponds to the “approval authority”).

quantities such as owner information data, location information data, scheduled dates, inspection data, review data, and other related information”), [0081] (user enters information via web browser if authorized), [0070]-[0077] (inspectors, jurisdiction reviewers access and modify the information), [0017] (updates to database), [0019] (“The controlling jurisdiction reviews the [inspection] result data online and any review data is stored in the system database.”), [0104], [0114] (new data added to database), [0115]-[0123], FIG. 8 (user access), FIG. 9 (providing payment information which payment is described as being made by the owner and stored in the database, as in [0055], [0075], [0108], [0113], [0125]-[0126]), cls. 1, 1, 12; step [8a] (describing user access and modification of data for each class of user including owner, inspector and approval authority); EX1024, 1; EX1003 ¶164.

And, as discussed in Section V.B.1, it would have been obvious that the asset could be a fire hydrant. *See also* EX1003 ¶¶159, 124-139.

[8c] analyzing the records of assets from the database to identify notification events;

Key discloses, or it would have been obvious to include as part of Key, step [8c]. EX1003 ¶¶165-171.

Key discloses that “the application software also contains the necessary logic necessary to process the user’s transaction and provide the associated updates and any *notifications*.” EX1005, [0068]; EX1003 ¶166. Key further discloses “notification system 414 [that] is operative to *send communications* to users of the

JOM 110” such as “by email,” “an automatically generated telephone call,” etc. EX1005, [0071], FIG. 4, [0067] (“The web servers 320 also are operative to *provide notifications* in a known manner usually via email”); EX1003 ¶166. Per Key, “[t]he work assignment unit automatically schedules inspection for objects with upcoming inspection due dates” and “generate[s] and place[s] the task in the insurance company scheduled inspection listing.” EX1005, [0076]; EX1003 ¶166.

As shown in Figure 5, below, “the JOM *analyzes the database* to determine those objects requiring scheduling of an inspection.” EX1005, [0080], FIG. 5; EX1003 ¶167. At step 525, “the JOM schedules the object for inspection.” EX1005, [0083]; EX1003 ¶167. At step 530, “the JOM determines if any object requires inspections in the near future,” and if YES, at step 535, “the inspection is scheduled” whereby “[t]he JOM computes the required inspection based upon the last performed inspection and the required inspection frequency,” and “a task is generated and placed in a task listing for the covering insurance company for those objects with upcoming required inspections.” EX1005, [0084]; EX1003 ¶167. That is, the JOM’s database analysis results in a calculation of a designated interval in advance of the next inspection deadline (*e.g.*, between the last inspection and next required inspection based on the inspection frequency). EX1003 ¶167; EX1005, [0084], [0099].

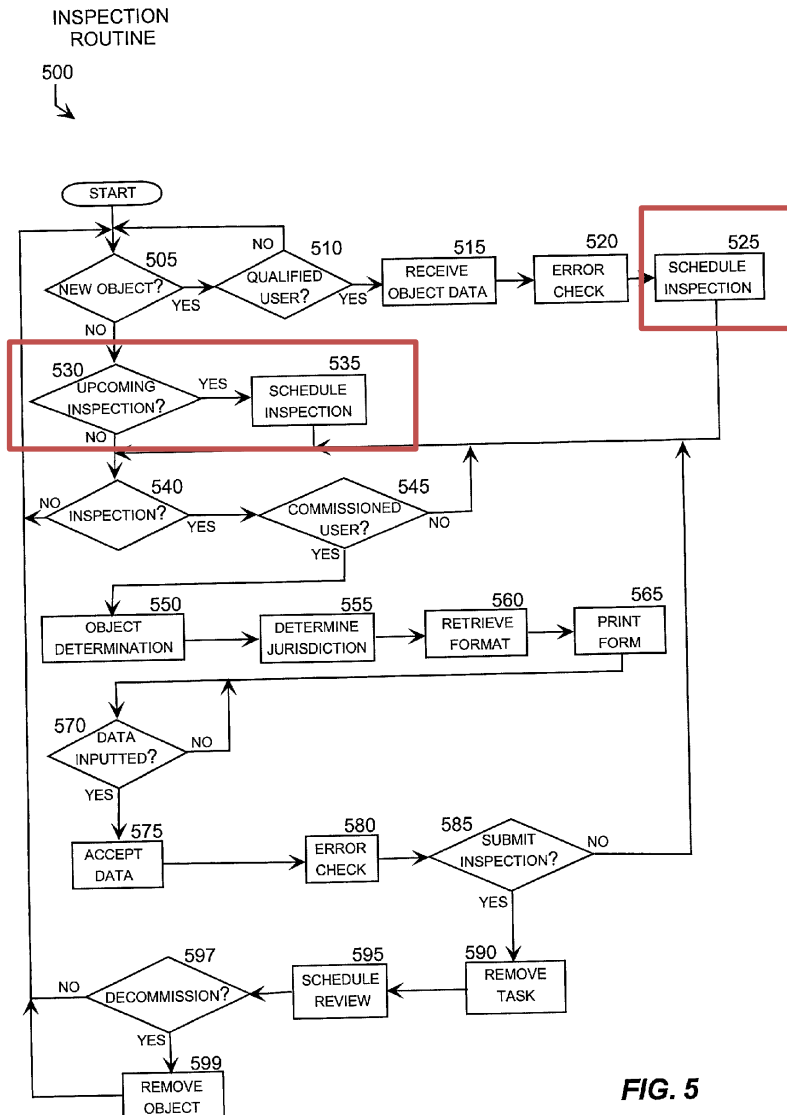


FIG. 5

As additional examples of analyzing asset records from the database, Key discloses that (i) “object data is stored in a system database” and “[b]ased upon the provided object data, the jurisdiction online manage[r] can determine the controlling jurisdiction” and (ii) “[t]he system can automatically determine objects with upcoming inspections and provide this information to the inspection entity.” EX1005, [0018], [0020]; EX1003 ¶168.

As shown in Figure 16, below, the JOM generates a homepage 1600 that includes task listing 1612 such as tasks that are overdue, and scheduled inspections for owned assets. EX1005, [0183]-[0186]; EX1003 ¶169.

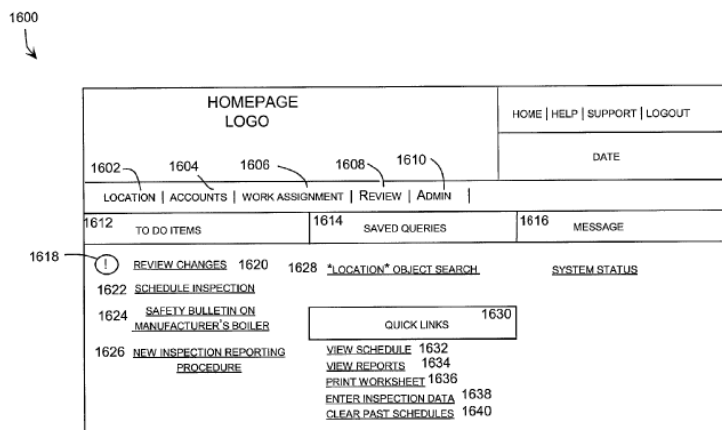


FIG. 16

Key also discloses a review unit 445, wherein if the review is rejected, “the owner is automatically notified and another inspection is scheduled.” EX1005, [0077]; EX1003 ¶170.

A POSA would have understood, or found it obvious, that the above-described notifications and/or task listings for the various tasks such as scheduled inspections, overdue inspections, upcoming inspection deadlines, inspection review rejections, etc. for the owned assets correspond to the claimed notification events that are identified based on analysis of the asset records from Key’s database. EX1003 ¶171.

[8d] based on the analysis, notifying an owner of an asset of a notification event, wherein the notice includes a standard format description of the type of inspection, and a cost associated with the type of inspection, and wherein the notification event comprises a designatable interval in advance of an impending deadline for the inspection, and wherein the owner of the asset, upon remotely accessing the fire hydrant management software compliance registry, may update and review the status of the assets;

Key alone or in combination with Sweeney discloses, or it would have been obvious to include as part of Key, step [8d]. EX1003 ¶¶172-190.

Petitioner addresses step [8d] in two parts.

Part 1: “based on the analysis, notifying the owner ... wherein the notice includes a standard format description ... and wherein the notification event comprises a designatable interval in advance of an impending deadline for the inspection”

As discussed in step [8c], Key discloses a “notification system” to notify users of notification events including a designated interval in advance of upcoming inspection deadlines for the owned assets whereby notifications are sent, *e.g.*, “in a known manner usually via email,” including automatic notification to owners, based on database record analysis. *See* step [8c]; *see also* EX1003 ¶¶175, 166-171. Key further discloses “receiving an inspection notification; and scheduling an inspection date.” EX1005, cl. 19; EX1003 ¶176.

Key provides certain details about its notices, and as discussed below, it would have been obvious and logical to a POSA that such notices would routinely include a wide variety of information relevant to the inspection with a standard format description (such as inspection type, cost, inspection due date, etc.) based on the database record analysis. EX1003 ¶¶177-183.

First, Key teaches to a POSA that: (i) “[t]he complexity of ensuring proper data nomenclature and format required by each specific jurisdiction is solved by the [JOM]” (*e.g.*, a particular format and standard description is to be used to simplify/streamline communications); (ii) “[t]he system also manages the payment of proscribed fees and the issuance of certificates” (*e.g.*, associated inspection costs must be provided for fees to be paid); (iii) “the JOM performs notification of the acceptance and prompts payment,” which “[n]otification can be performed by email” (*e.g.*, notifications to owners including payment information); (iv) “the JOM updates the inspection date,” which date “is used by the JOM to calculate the next required inspection” (*e.g.*, inspection deadline at a predetermined interval); and (v) “[e]ach regulatory entity 120 has the authority to determine the required inspections and inspection frequencies for pressure vessels and boilers....” (*e.g.*, inspection types and frequency depending on asset, jurisdiction, etc.). EX1005, [0043], [0047]-[0048], [0060], [0097], [0099], FIG. 7; EX1003 ¶178.

Second, Key discloses using standard forms or templates as part of its system: the JOM “determine[s] the controlling jurisdiction for the object,” after which “the jurisdiction’s inspection form or a similar inspection template can be provided....” EX1005, [0018], [0045] (JOM “provides the appropriate jurisdiction forms” and “provides other functions which facilitate the boiler and pressure vessel inspection process.”), [0016] (disclosing “common interface and programs to support their mandatory functions”), [0047], [0087], cls. 1, 12, 22, 32; EX1003 ¶179.

Third, Key’s teachings to use standard forms and nomenclature (descriptions) are not limited to inspection forms. As noted, Key discloses that “[t]he complexity of ensuring proper data nomenclature and format required by each specific jurisdiction is solved by the jurisdiction online manager” and further that its system is designed to “direct[] the inspection process from installation of the object to the object’s decommission” (*i.e.*, throughout the entire asset lifecycle interacting with and providing relevant information in a standardized jurisdictional format and nomenclature to the relevant stakeholders including owners, inspectors and authorities). EX1005, [0043]; EX1003 ¶180.

Fourth, consistent with the above-discussed disclosure in Key—including that relevant information is to be shared, particular formats and nomenclature are to be used, inspection dates are calculated, inspections are scheduled and must be paid for, and notices are provided about required inspections based on notification events

including a designated interval in advance of the deadline—a POSA would have understood that the disclosed notifications would logically and advantageously be in a particular standard format description and include the relevant details for the owner (inspection type needed, inspection due date, cost due, etc.) sent based on a notification event at a particular set time in advance, *e.g.*, such that the inspection could be timely scheduled prior to the deadline. EX1003 ¶¶181, 166-171, 175-180; EX1020, [0080] (“standardized warning letters to advise about regulations requiring renewal of the service contract”), [0057] (“form letters” or “[o]ther types of communications” sent to homeowner); EX1024, 4 (disclosing inspection types in sample reports for users including asset owners); EX1032, [0121] (setting and notifying of predetermined service intervals); step [8c].

Fifth, it was known that it was necessary and important to provide stakeholders with relevant information in a timely manner needed to perform tasks, make decisions, etc.; for example, consistent with such understanding, Chauhan explains that providing cost information is “invaluable” for purposes of budgeting and preparing reports and that providing the relevant information “makes managing work easier than ever before by giving managers fingertip access to information concerning job status”—which applies equally to Key’s system and the need to provide cost information to an owner to allow the owner to pay for services (*e.g.*, inspections) as disclosed in Key. EX1003 ¶¶182-183; EX1016, [0085], [0167];

EX1025, [0006] (explaining need for owners in “regulated industries” to track information to comply with state and federal requirements, and provide such compliance certification information to various partners including government agencies).

It is even more obvious under Patent Owner’s theory asserted in district court, that “cost” can be effectively any information provided to the owner and that notice can be satisfied by email or a phone call—in fact, Key expressly discloses this. EX1030, 59-60; *c.f.* 28-30, 74-76; EX1003 ¶184.⁶

To the extent Key alone does not disclose or render obvious this step—including the particular details and format of the report—the combination of Key

⁶ Patent Owner in district court asserted (wrongly) that the “cost” can be effectively any information. EX1030, 59-60 (“broad term ‘cost’ includes (without limitation) ‘time’, ‘effort’, and ‘price’” and may be met in “multiple ways” including simply that “the municipality sends the notice that requires the owner’s involvement” or “details a required inspection by a licensed company” and that notice may be satisfied “by emails and phone calls”); *c.f.* 28-30, 74-76. The prior art presented herein renders this claim obvious under both Patent Owner’s (wrong) theory and under the plain and ordinary meaning of the claim.

and Sweeney does and confirms the obviousness of such inclusion in Key's notification to the owner. EX1003 ¶¶185-189. Sweeney discloses that "[t]he asset owner may be provided with access to a web page listing all the construction assets owned by the asset owner (e.g., an asset owner home page)" and further individual web pages for each asset. EX1006, [0039]; EX1003 ¶186. Sweeney further discloses "generating computerized reports in response to user queries" that "may relate to one or more of the plurality of the construction assets and be generated according to the age of the construction asset, a related condition of the construction asset, a type of the construction asset, recommended repairs listed on the inspection report[], date of construction, date of last repair, expected remaining lifetime of the construction asset, contractors responsible for construction of or repairs to the construction asset, a location of the construction asset, repair history, repair type, repair costs, defect history and the like." EX1006, [0042], [0017] (email notification to asset owners); EX1003 ¶¶186, 89. Like the notice in Key to provide relevant information to the owner, Sweeney likewise discloses providing relevant information (including cost, asset type, repairs, inspection history, etc.), further confirming to a POSA that such relevant information is provided in a form report to the owner such that the owner can take the necessary actions, *e.g.*, engage inspectors for the appropriate inspection, obtain the necessary repairs, and pay the appropriate amount for the same. EX1003 ¶187.

Part 2: “wherein the owner of the asset ... may update and review the status of the assets.”

Key further discloses that the owner may remotely access the management software compliance registry via a web interface, and update and review the status of the assets, such as providing “accounting information” which “includes payment information, object information, invoice information,” etc. and results in an update regarding, *e.g.*, the asset being in paid for and being in compliance. EX1005, [0070], [0075], [0125]-[0129], FIG. 7 (payment information stored in database), FIG. 9 (accounting interface), FIG. 13 (object interface); EX1003 ¶189; *see also* steps [8a], [8b] (describing owner remotely accessing software compliance registry and updating asset status).⁷

⁷ Patent Owner in district court asserted (wrongly) that the claim does not require the “*owner* of the asset, upon remotely accessing the ... registry, may update ... the status of the assets” but rather that it is enough that, *e.g.*, the *approval authority* may. EX1030, 58-59; *c.f.* 26-28, 72-74; EX1002, 227-28. Key discloses this both under the plain meaning and under Patent Owner’s construction. EX1003 ¶¶172-190.

[8e] based upon the analysis, sending a standard format notice to the approval authority of the status of the assets assigned to the approval authority, and wherein the approval authority, upon accessing the web-based registry, may update and review the status of the assets assigned;

Key discloses, or it would have been obvious to include as part of Key, step [8e]. EX1003 ¶¶191-208.

Like step [8d], Petitioner addresses step [8e] in two parts.

Part 1: “based on the analysis, sending a standard format notice to the approval authority of the status of the assets assigned to the approval authority”

First, Key discloses providing notifications to users (such as approval authorities, etc.). As discussed in step [8c], Key discloses a “notification system” to notify users of events. *See* step [8c]; *see also* EX1003 ¶¶194-197. Also as discussed in step [8c], Key discloses that “web servers 320 also are operative to ***provide notifications in a known manner*** usually via email” and that “application software [of application servers 330] ... contains the necessary logic necessary to ... provide the associated updates and ***any*** notifications.” EX1005, [0068]; EX1003 ¶194-197; *see also* step [8a], [8c]. Key further discloses that “notification system 414 is operative to ***send notifications to users*** of the JOM 110” such as by email, facsimile, etc. EX1005, [0071]; EX1003 ¶195. Per Key, users include the approval authority and, as discussed, a POSA would have understood the need to provide the approval authority (and other users) with relevant information to perform the functions within

the JOM. EX1003 ¶¶196-199; step [8d] (explaining obviousness of providing relevant users with the relevant information).

Second, Key discloses (i) “object data is stored in a system database,” (ii) “[b]ased upon the provided object data, the jurisdiction online manage[r] can determine the controlling jurisdiction” and (iii) “[t]he system can automatically determine objects with upcoming inspections and provide this information to the inspection entity.” EX1005, [0018], [0020]; EX1003 ¶200. Although this discussion is in the context of providing information to the inspection entity based on the database analysis (and the disclosure in step [8d] concerned owners), as discussed, it was well-known and obvious to provide relevant information to the appropriate JOM stakeholders such that they could take the appropriate actions (*e.g.*, to the controlling jurisdiction such that they can passively monitor and keep up-to-date on compliance or inspection status of assets within their jurisdiction, and better and more efficiently manage the mandatory inspection process and regulatory oversight, and improve information flow across the relevant stakeholders). EX1003 ¶200; EX1005, [0002], [0014]-[0015]; EX1020, [0045] (regulatory bodies have limited funds and employees and so there is a need for the body to automatically be notified of relevant information and events), [0032] (generating reports for regulatory body related to compliance), [0051], [0073]; EX1021, Abstract.

Third, in addition to the owner and inspectors, Key discloses providing notice directly to the controlling jurisdiction as well: “[a]fter receiving inspection result data from the inspection, the inspection data is stored in the system database,” “[t]he inspection result data is then provided to the controlling jurisdiction,” and “[t]he controlling jurisdiction reviews the result data online and any review result data is stored in the system database.” EX1005, [0019], Abstract, [0077], [0091] (“the JOM schedules the inspection to be reviewed by the jurisdiction” and “generates and places a task in the jurisdiction task listing”); [0177]-[0182] (review, access and update data, *e.g.*, “enters comments” and acceptance or rejection), FIGs. 15, 20, 21; EX1003 ¶201.

Fourth, Key discloses that each jurisdiction (regulatory entity) “requires the inspection information *in its format* utilizing its categories and domains,” and “evaluate[s] each inspection, repair, and other data to ensure compliance with the jurisdiction’s requirements.” EX1005, [0047]-[0048]; EX1003 ¶202.

Consistent with Key’s disclosure and stated goals, a POSA would have understood that the information provided to the approval authority based on the analysis would be in a standard format. EX1003 ¶203; EX1005, [0018], [0043], [0045], [0047], [0087], cls. 1, 12, 22, 32; EX1020, [0058] (“Regulatory agency 40 can also obtain status reports regarding timely repairs....”); *see also* step [8d].

Fifth, further confirming and providing additional examples of the standard format, Key visually depicts web-pages for reviewers (approval authority) which includes a standard layout. EX1003 ¶¶204-206. Figure 20, below left, depicts a “review web page 2000” that “lists the open reviews needing performance,” “provides links to perform the review,” “lists the type of review required,” etc. EX1005, [0195]; EX1003 ¶205. Figure 21, below right, depicts a “review object web page 2100” including “review object edit.” EX1005, [0196]; EX1003 ¶206.

2000

REVIEW CHANGES				
2010	2020	2030	2040	2050
	DATE	TYPE	DESCRIPTION	SUBMITTER
REVIEW	7/23/200	LOCATION	330 MAIN ST	
REVIEW	8/1/2000	BOILER	LA104332 - NB342322	
REVIEW	8/1/2000	PV	LA1023577 - NB123123	
REVIEW	8/1/2000	INSPECTION	BOILER - LA1023343 - INTERNAL	

FIG. 20

2100

REVIEW BOILER EDITS - 10/10/2000 BY "JURISDICTIONREVIEWER"

2110

BOILER DETAILS	2140	2150
JURISDICTION #	CURRENT VALUE	OLD VALUE
INS CO #	LA1234567	
OTHER #	NB123456	
DATE LAST INSPECTED	10/10/1000	10/10/1999
INSPECTION FREQUENCY	ANNUAL	
SPECIFIC LOCATION	MAIN BLR RV	
OWNER #		
MANUFACTURER	CLEAVER	
TYPE	PWB	
YEAR BUILT	1972	
BILLING/OWNER DETAILS		
ENTER COMMENTS HERE		

2120

2130

ACCEPT 2160 REJECT 2170 RESET 2180

FIG. 21

Part 2: “wherein the approval authority, upon accessing the web-based registry, may update and review the status of the assets assigned”

As discussed above, Key discloses that the approval authority may remotely access the registry via a web interface, and update and review the status of the assets, such as “the performance of a jurisdiction review,” “accept comments,” and “[u]pon acceptance of a review item, the item is deleted from a task listing.” EX1005, [0065], [0070]-[0077] (jurisdictional reviewers access and modify the information), [0111] (jurisdiction review file includes, e.g., result of review and associated comments),

[0123] (review unit access), [0177]-[0182] (review, access and update data, *e.g.*, “enters comments” and acceptance or rejection), [0196], FIGs. 7, 21, cls. 1, 11; EX1003 ¶208; *see also* steps [8a], [8b] (describing approval authority remotely accessing registry and updating asset status).

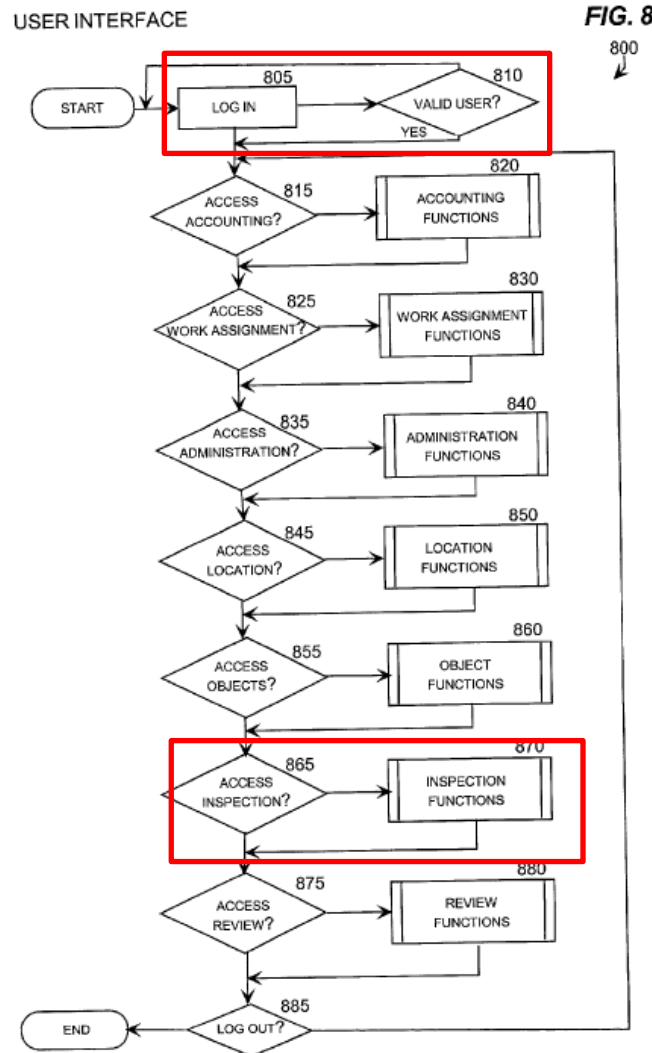
[8f] upon logging on to a password controlled website configured to provide access to the fire hydrant management software, providing to an inspector the owner selects, the selection based upon a list of qualified inspectors that are available to inspect the asset based upon attributes including proximity to the asset, a web-based template configured to describe the asset an[d] each of the steps of the inspection;

Key alone or in combination with McKinney and/or Sweeney discloses, or it would have been obvious to include as part of Key, step [8f]. EX1003 ¶¶209-222.

Key discloses that users—including inspectors—log on to a password protected website to access the management software.⁸ EX1005, [0106], [0115]-[0123], [0078], FIG. 8; EX1003 ¶¶210, 157; *see also* step [8a] (describing access grant to users including inspectors via password). For example, as shown in Figure

⁸ As explained above, including in §IV.A and §V.B.1, it would have been obvious that such software was used for fire hydrant management. *See also* EX1003 ¶¶210, 124-139.

8, below, at step 805, “the user requests an access web page provided by the JOM,” which “prompts the user for the username and password” and which, if authorized, “provides the user with a homepage generated for that user.” EX1005, [0115]-[0116]; EX1003 ¶211. At step 865, “the JOM determines if the user has requested the inspection unit,” and the user “has the requisite permission” (namely, is an authorized inspector) then the process continues to the “YES branch of step 865 [and] is followed to routine 870.” EX1005, [0116]-[0117]; EX1003 ¶211.



Key further discloses that “the jurisdiction’s *inspection form or a similar inspection template* can be provided to the inspector.” EX1005, [0018], [0042] (The JOM “is designed to automatically provide the appropriate jurisdiction inspection data requirements and *forms* to commissioned inspectors....”); [0045] (JOM “provides the appropriate jurisdiction forms”); EX1003 ¶212. And, Key discloses that such template may be an “online inspection template information” after which “inspection result data based upon the inspection template information” is received. EX1005, cl. 1, cl. 22, Abstract; EX1003 ¶213.

Key Figure 19, below, “illustrates a screen shot of an inspection web page 1900” that “allows an inspector to enter or edit inspection data.” EX1005, [0193]; EX1003 ¶214. As can be seen, the inspection web page includes a form template that “displays the basic object information 1910 associated with the inspection” including an asset description, as well as data entry boxes and pull down boxes for the various required data to guide the inspector through the inspection. EX1005, [0193]-[0194]; EX1003 ¶214. Once the inspector completes each step of the data entry and pull down boxes, the inspector can submit the inspection (via submit button 1950). EX1005, [0194]; EX1003 ¶214.

1900
↓

EDIT INSPECTION		HELP
UPDATE INSPECTION DATA		
1910	FIRETUBE BOILER - LA1234567 - *MANUFACTURER*S - 1998	
1915	CATEGORY	SAFETY VALVE - CAPACITY TOO LOW - #1231
1920	DATE	02/02/2002 
1925	STATUS	OPEN ▼
1930	INSPECTOR (CHANGE)	*INSPECTOR*
1935	TYPE (CHANGE)	VIOLATION
1940	CONDITION	THE BOILER ROOM HAS INSUFFICIENT OUTSIDE AIR.
1945	REQUIREMENT	PROVIDE AT LEAST 14 SQUARE INCHES OF OUTSIDE FRESH AIR FOR COMBUSTION.
SUBMIT CANCEL DELETE 1950 1955 1960		

FIG. 19

Key Figure 14, below, “illustrates an embodiment of a[n] inspection interface routine 870,” which provides a step-by-step process for the inspection. EX1005, [0168]-[0176]; EX1003 ¶215. Indeed, it was well-known at the time of the ’966 patent to include such step-by-step instructions to allow for an inspector to enter information about the inspection of an asset. EX1003 ¶215; EX1007, 3:18-22, 11:61-12:17, FIG. 9 (Campion’s questionnaire).

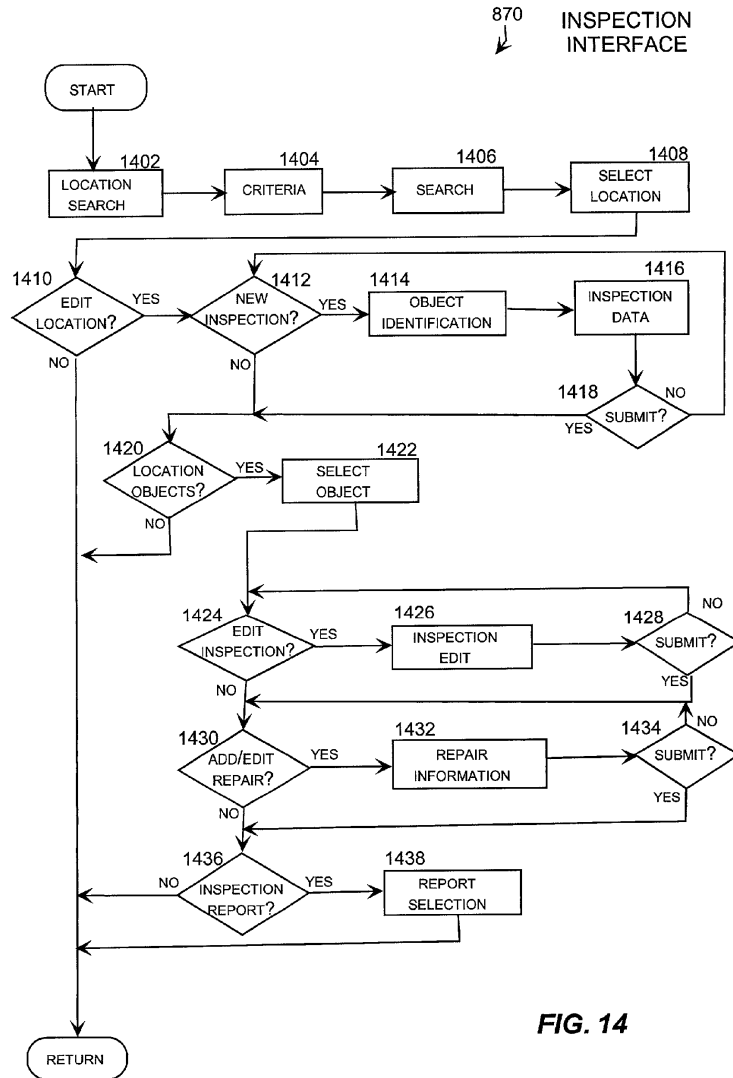


FIG. 14

Key also discloses that each “inspector 135 must be *qualified by a jurisdiction* 120 and receive a commission in order to perform an inspection *in that jurisdiction* 120.” EX1005, [0048], [0051]; EX1003 ¶216. That is, a POSA would have understood that Key discloses that inspections of the assets within a jurisdiction are by qualified inspectors that are located within proximity of the asset (*i.e.*, within the jurisdiction of the asset). EX1003 ¶216. Notably, this is consistent with the infringement position Patent Owner took in the district court case, asserting that,

regardless of whether the owner actually selects the inspector or whether such owner-selected inspector was “available to inspect the asset based upon attributes including proximity to the asset,” the claimed step was still met. EX1023, 70-72; EX1003 ¶216.⁹ And, Patent Owner cannot credibly assert there is anything inventive about such proximity-based selection by an owner as the ’966 patent provides no details. *See Trustees of Columbia Univ.*, 620 F. App’x at 933; *Streck*, 665 F.3d at 1288.

To the extent that the claim requires that (i) the inspector be selected by the owner and (ii) selection based upon a list of qualified inspectors that are available to inspect the asset based upon attributes including proximity to the asset—as the plain

⁹ That is, as is apparent from Patent Owner’s infringement assertions in district court, Patent Owner asserts (albeit wrongly) that the claimed step is broad enough to cover simply allowing an inspector within a jurisdiction to perform the inspection, regardless of whether (i) the owner selects the inspector, (ii) the inspector is actually qualified and (iii) the inspector is within proximity of the asset. EX1023, 70-72. The prior art presented herein renders this claim obvious under both Patent Owner’s (wrong) theory and under the plain and ordinary meaning of the claim.

language of the claim dictates—step [8f] is disclosed by the combination of Key and McKinney and/or Sweeney. EX1003 ¶¶217-222.

As discussed in Section V.A.4, McKinney discloses “a system and method for servicing and for verifying compliance related to the inspection, repair and/or service contract renewal status of environmental equipment such as wastewater treatment systems.” EX1020, [0001], [0045] (system for regulatory compliance), [0064] (“servicing includes maintenance, repair, inspection,” etc.); EX1003 ¶218. McKinney also discloses that (i) the system “may also provide for online contracts or sales with service providers of choice whereby the homeowner or other responsible party can contract with, change contracts, or the like, with a desired service company through [a] website....” (namely, owner-selection), (ii) “[d]epending on regulatory requirements, service personnel may be required to be authorized representatives” and owners “may have contracted to have certified servicing performed by a service company utilizing certified personnel” (namely, qualified inspectors), and (iii) “service personnel that are in a particular area ... may be able to log into or have the service company log into the scheduler to determine if efficiencies can be achieved by performing inspections while the service personnel is already in that area” whereby such “scheduler function ... is likely to reduce operating costs for the service company” (namely, the inspector is within proximity of the asset). EX1020, [0063]-[0064], [0080]; EX1003 ¶219.

As discussed in Section V.A.3, Sweeney discloses “methods and systems for online management of construction assets.” EX1006, [0007]; EX1003 ¶220. Sweeney discloses an “online bid submission form ... provided to a plurality of contractors for use in submitting a bid on the project [related to the construction asset].” EX1006, [0043]; EX1003 ¶220. Contractors authorized to submit bids may be limited by location (“e.g., area, regional, or national”), that is, in proximity to the asset. EX1006, [0043]; EX1003 ¶220. “The asset owner can be provided with online access to the submitted bids ... in order to select[] a winning bid from the submitted bids,” that is, the owner selects the contractor (as applied to Key’s JOM, the qualified inspector). EX1006, [0043]-[0044], FIG. 1; EX1003 ¶220.

Based on these teachings, a POSA would have understood that it would have been logical and obvious that the owner could select—*e.g.*, for reasons of efficiency to get the inspection performed quickly/immediately, reduced labor cost that could be passed on to the owner or benefit the inspector, and/or quality of work/bid parameters—a qualified inspector within proximity of the asset. EX1003 ¶221; EX1005, [0048], [0051] (qualifying inspectors within a jurisdiction); EX1006, [0007], [0043]-[0044] (owner-selected contractors within area/region of asset); EX1020, [0001], [0045], [0063]-[0064], [0080] (owner-selected qualified inspectors based on, *e.g.*, asset proximity); EX1025, Abstract, [0294], [0341] (selection based on verifications/representations); EX1007, 2:37-43. And further confirming the

obviousness of allowing owner selection of qualified inspectors based on attributes including asset proximity, Chauhan discloses “smart features” that allow selection of crews based on location (such as within a district or a search radius) as well as based on a specific type of crew, which a POSA would have understood improved response time, reduced costs, and ensured that the appropriate crew was selected. EX1016, [0217]; EX1003 ¶222.

[8g] receiving from the inspector, inspection information in specific response to the web-based template;

Key discloses, or it would have been obvious to include as part of Key, step [8g]. EX1003 ¶¶223-225.

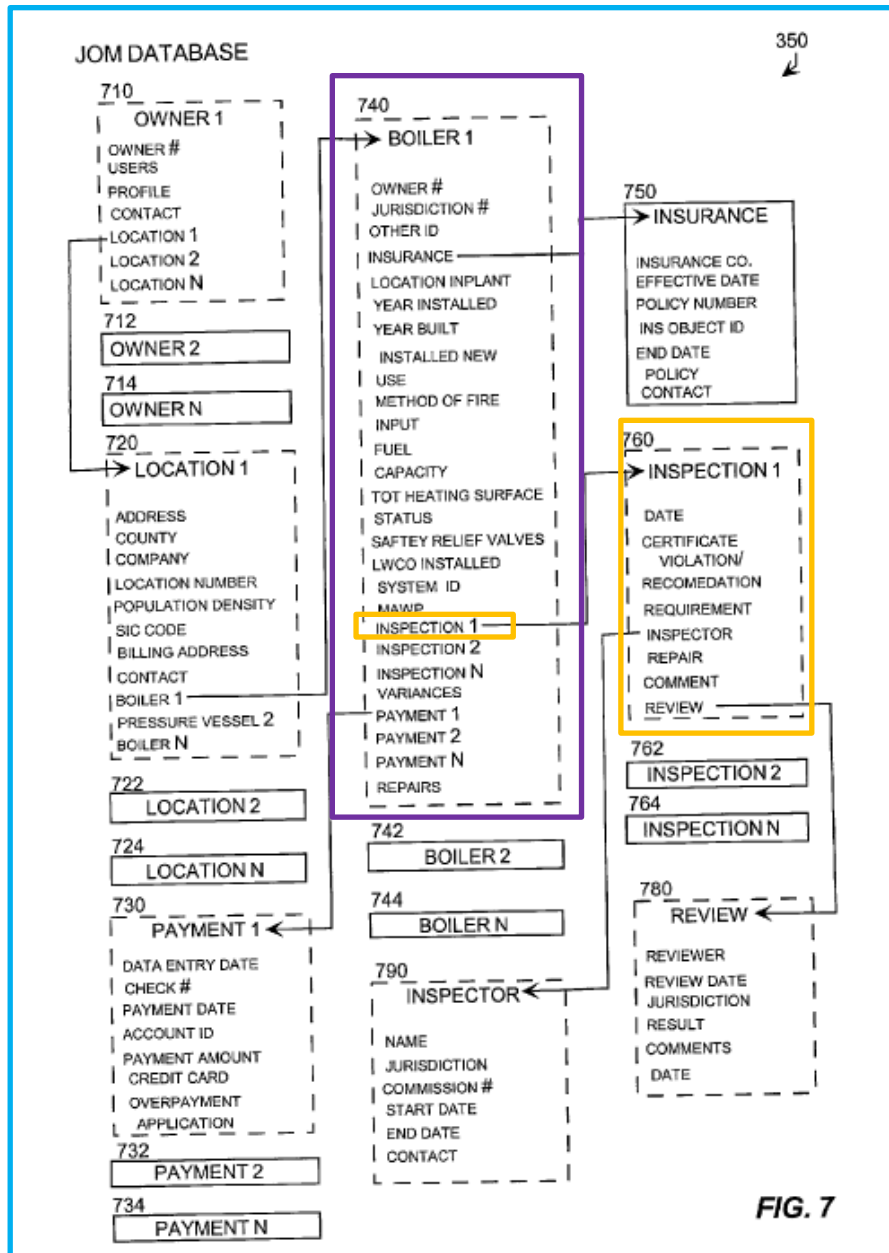
As discussed in step [8f], Key discloses providing “the jurisdiction’s inspection form or a similar inspection template ... to the inspectors....” EX1005, [0018], cl. 1 (“displaying customized online inspection template information...” and “receiving inspection result data based upon the inspection template information from a plurality of non-government inspection entities via the global computer network”), [0042], [0045], [0047], [0087]-[0088]; step [8f]; EX1003 ¶¶224, 212-214. Also as discussed in step [8f], Key discloses a web-paged inspection template (such as in Figure 19) that “allows an inspector to enter or edit inspection data” via provided data entry or pull down boxes (thereby providing inspection information in specific response to the template) and “submit and store the completed inspection

by activation of the submit button 1950.” EX1005, [0193]-[0194], FIG. 19; EX1003 ¶¶225, 214; step [8f].

[8h] storing in a database in association with the asset, the inspection information, wherein the inspection information is accessible to the users, and updating the database in association with the asset based upon the inspection information;

Key discloses, or it would have been obvious to include as part of Key, step [8h]. EX1003 ¶¶226-229.

In Figure 7, below, Key discloses “a data file structure of information stored in the JOM **database 350**” which information “is organized logically in conventional data files in the known manner.” EX1005, [0104]; EX1003 ¶228; *see also* step [8b] & §V.A.1 (discussing Key’s database). “Object inspections and associated information are stored in the inspection files,” for example, “**INSPECTION 1 760** illustrates the information stored in an inspection file” including “the inspection date, comments, violations and recommendations, and certificate information” associated with Boiler 1 as part of **object file 740**. EX1005, [0108]-[0110]; EX1003 ¶228.



According to Key, “data stored in the database is not overwritten upon the storage of edit information” but instead “new information is appended to the existing information.” EX1005, [0114]; EX1003 ¶229. The “new information” includes the inspection information for the asset being inspected that is entered via the web interface. EX1005, [0088]-[0089], [0048], [0070]; EX1003 ¶229. This information

is accessible to the users (including owners, inspectors and jurisdictional reviewers). EX1005, [0115]-[0123]; EX1003 ¶229; *see also* steps [8a], [8b], [8f] (describing accessibility of the inspection information by the users).

[8i] transmitting to the approval authority, a standard format compliance report including noting compliance, wherein the compliance report includes, noting deficiencies in the asset and storing the noted deficiencies in association with the asset.

Key discloses, or it would have been obvious to include as part of Key, step [8i]. EX1003 ¶¶230-235.

Key discloses that “[a]fter receiving inspection result data from the inspection, the inspection data is stored in the system database,” “[t]he inspection result data is then *provided to* the controlling jurisdiction,” and “[t]he controlling jurisdiction reviews the result data online and any review result data is stored in the system database.” EX1005, [0019], Abstract, [0077], [0091], cls. 1, 11, 21; EX1003 ¶231. Such inspection result data may note compliance and/or include “a violation” or “a recommendation,” which may be “certificate blocking” (namely, noted deficiencies in the asset). EX1005, [0020], [0052]-[0055], [0110], FIG. 2, FIG. 7 (item 760 INSPECTION 1 noting violation stored in JOM database 350); EX1003 ¶231. Per Key, “[v]iolations must be rectified before the jurisdiction will allow the object to be placed into service.” EX1005, [0053]; EX1003 ¶231. Key further discloses that each jurisdiction (regulatory entity) “set[s] the safety requirements and govern[s] the

issuance of certificates of compliance,” “requires the inspection information *in its format* utilizing its categories and domains,” and “evaluate[s] each inspection, repair, and other data to ensure compliance with the jurisdiction’s requirements.” EX1005, [0047]; EX1003 ¶232. Key also discloses that “the JOM *stores the inspection report in connection with the object*” (step 590 of Figure 5) and “*schedules* the inspection to be reviewed by the jurisdiction” (step 595 of Figure 5). EX1005, [0091], [0196], FIG. 21; EX1003 ¶232.

As discussed above, Key also discloses that “web servers 320 also are operative to *provide notifications in a known manner usually via email*” and that “application software [of application servers 330] ... contains the necessary logic necessary to ... provide the associated updates and *any* notifications.” EX1005, [0068]; EX1003 ¶233; *see also* §V.A.1; steps [8a], [8c]. Key further discloses that “notification system 414” send notifications to “users of the JOM 110” such as by email, facsimile, etc. EX1005, [0071]; EX1003 ¶233.

A POSA would have understood, or at least found obvious, that such notifications sent to “users of the JOM 110” via email include the standard format compliance reports noting compliance including any deficiencies. EX1003 ¶234. Indeed, as discussed above, the “users of the JOM 110” include the jurisdictions (namely, the approval authorities). EX1003 ¶234; *see also* steps [8c], [8e]. This understanding is further confirmed by Key’s disclosure that the “[t]he inspection

result data is then *provided to* the controlling jurisdiction.” EX1005, [0019], Abstract; EX1003 ¶234. It is further confirmed by Key’s disclosure that “the JOM *schedules* the inspection to be reviewed by the jurisdiction” and “generates and places a task in the jurisdiction task listing,” indicating to a POSA that the inspection report is provided (transmitted for viewing) to the jurisdiction reviewer. EX1005, [0091]; EX1003 ¶234. And, logically, a POSA would have understood that expressly providing/sending standard reports to an approval authority reduces the efforts and costs needed for such authority to monitor the system to ensure compliance, issue certificates, block certificates, etc. (*e.g.*, the authority could passively, rather than actively, monitor, compliance) and that various means were known (including web-based, email, etc. as disclosed in Key)—consistent with Key’s stated goals that its “system provides an efficient, centralized, web enabled process for transfer of data between multiple jurisdictions and multiple entities required to routinely interact with the multiple jurisdictions” and “provides a cost-effective system for performance and jurisdictional review....” EX1003 ¶234; EX1005, [0015], [0043]; EX1007, 17:23-27 (Campion disclosing “publication of reports in a format that would be accepted by, for example, a location fire inspection jurisdiction”), 2:11-16, FIGs. 11A, 11B, 11C, 11D; EX1020, [0032] (disclosing “generating a report for a regulatory body related to compliance with the scheduled inspection and timely repairs for each of the environmental equipment systems”), EX1021, 8:5-24

(disclosing an “operational criteria compliance verification report” that “is preferably a code compliance verification report based on fire/life safety codes and associated industry standards” which report can be “forward[ed] ... to one or more predetermined entities”), 21:23-60.

Accordingly, a POSA would have understood that such inspection data of the asset in the required standard jurisdictional format, including compliance and any violations or recommendations (*e.g.*, the disclosed inspection report) which are stored in the database and provided to the authority for review, corresponds to the claimed “transmitting to the approval authority, a standard format compliance report including noting compliance, wherein the compliance report includes, noting deficiencies in the asset and storing the noted deficiencies in association with the asset.” EX1003 ¶235.

3. Claim 9

The method of claim 8, wherein the storing further includes: storing, in association with the asset a new deadline date, based upon completion of the inspection.

Key discloses, or it would have been obvious to include as part of Key, the step of claim 9. EX1003 ¶¶236-238.

Key discloses that, after the initial process is completed and assuming that asset is not decommissioned, “the [inspection] process is repeated,” which process includes scheduling an inspection, and “the review process is repeated,” which

process includes “updat[ing] the inspection date” which “is used by the JOM to calculate the next required inspection” (namely, when the next inspection deadline is calculated after the previous one is completed). EX1005, [0092], [0099], [0020], [0063], [0103], FIGs. 5, 6, cls. 9, 24; EX1003 ¶237. Such updating would logically include storing of that information for use by the JOM system, and, as discussed in steps [8b] and [8h], Key discloses storing the relevant information—such as inspection details including deadlines for the various assets—in its database. *See also* EX1003 ¶238; EX1005, [0020], [0045], [0061], [0069], [0074], [0076], [0087], [0104]-[0105], [0110], FIG. 7.

Claim 9 is obvious for the same reasons as claim 8. EX1003 ¶236; §§V.B.1-2.

4. Claim 10

The method of claim 9 further comprising: receiving bids to perform a suitably compliant inspection of the asset from a group of qualified inspectors including, at least, the inspector; and presenting to the owner a compilation of the bids for selection of the inspector.

The combination of Key and Sweeney discloses, or it would have been obvious to include as part of Key, the steps of claim 10. EX1003 ¶¶239-240.

As discussed in step [8f], Key alone or with Sweeney and/or McKinney discloses or renders obvious the selection of a qualified inspector, including the particularly selected inspector, and Sweeney discloses a bid selection process

whereby multiple contractors submit bids that are presented to the asset owner which then selects a winning bid. *See also* EX1003 ¶240; step [8f]. For example, as to the bid-selection process, as explained in step [8f], Sweeney discloses an “online bid submission form ... provided to a plurality of contractors for use in submitting bids” and that “[t]he asset owner can be provided with online access to the submitted bids ... in order to select[] a winning bid from the submitted bids,” that is, the owner selects the contractor from a compiled list (in Key’s JOM, the qualified inspector to perform the compliance inspection). EX1006, [0043]-[0044], FIG. 1; EX1003 ¶240.

Claim 10 is obvious for the same reasons as claims 8 and 9. EX1003 ¶239; §§V.B.1-2.

5. Claim 11

The method of claim 10 further comprising: based upon the owner selecting the inspector, scheduling the inspector’s inspection of the asset based upon the impending deadline, the inspector’s availability, and the asset availability.

The combination of Key and Sweeney discloses, or it would have been obvious to include as part of Key, the step of claim 11, which is nothing more than performing routine scheduling based on relevant availability and deadlines. EX1003 ¶¶241-243.

Key discloses “determining an inspection due date” and “scheduling an object inspection.” EX1005, cl. 24, [0020], [0045], [0055]; EX1003 ¶242. Key further discloses that the “work assignment unit automatically schedules inspections for

objects with upcoming inspection due dates.” EX1005, [0076], [0080], [0083]-[0084]; EX1003 ¶242. Key also discloses scheduling of “new work assignments,” which a POSA would understand to be based on relevant availability (*e.g.*, inspector and asset). EX1005, [0134]-[0135]; EX1003 ¶242.

Sweeney further discloses that contractor-submitted bids (inspectors, as applied to Key) include various information including contractor availability, etc. EX1006, [0014], [0051]; EX1020, [0082]-[0084]; EX1003 ¶243.

When the winning bid is chosen, the work to be performed is scheduled prior to the deadline (to ensure compliance) and when the inspector and asset are available (to ensure that the work can actually be performed, *e.g.*, if access to the asset is only available at certain times of day or certain days of the week). EX1003 ¶243.

Further confirming obviousness, Patent Owner cannot plausibly argue this step is inventive as the ’966 patent provides no details. *See generally* EX1001; EX1002, 139. *See also Trustees of Columbia Univ.*, 620 F. App’x at 933; *Streck*, 665 F.3d at 1288

Claim 11 is obvious for the same reasons as claims 8-10. EX1003 ¶241; §§V.B.1-2.

6. Claim 12

The method of claim 8 wherein the compiling the report includes: receiving, from the inspector, photographs of the asset or components of the asset; and storing the photographs in association with the asset and the date of the inspection.

The combination of Key and Sweeney discloses, or it would have been obvious to include as part of Key, the steps of claim 12. EX1003 ¶¶244-246.

Sweeney discloses that the “inspection report” from the inspector may include various including, including “**photographs** of the construction asset” along with other relevant information that are stored as part of the inspection report for the asset in the database (for example, as shown in Figure 2, below). EX1006, Abstract, [0008], [0034]-[0036], FIG. 2; EX1003 ¶244.

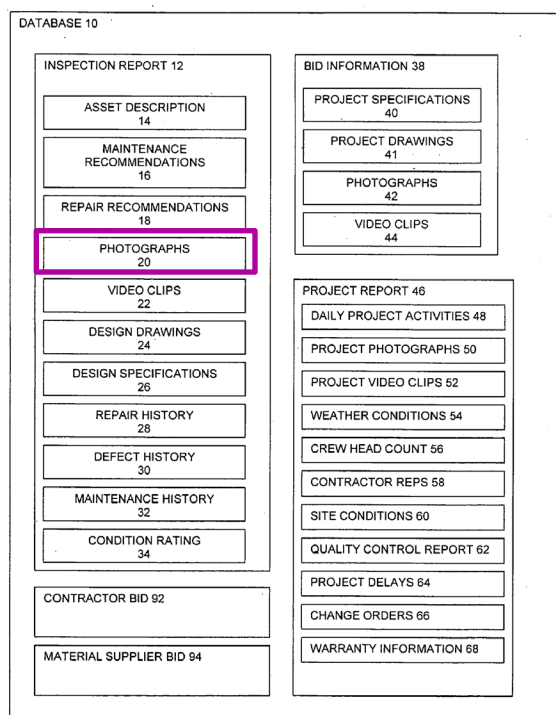


FIG. 2

As discussed in Section V.A.1 and steps [8b] and [8h], Key discloses storing relevant information in associate with the object inspection in its database as part of **object 740** including, *e.g.*, **inspection date**, comments, recommendations, etc. in **inspection 1 760** (as in Figure 7 below). EX1005, [0104]-[0105], FIG. 7; EX1003 ¶246. One logical example of relevant information to include in the inspection report are visual depictions (photos, video, etc. as in Sweeney) to aid in subsequent jurisdictional review and understanding of the inspection (*e.g.*, to illustrate deficiencies, compliance, allow a reviewer to remotely confirm that a repair was properly made, etc.). EX1003 ¶246; EX1006, [0034] (before/after photos provide visual history of repairs); EX1005, [0108] (“object repair information is associated with each object”), [0178] (“Inspections, repairs, and some edits of object information require jurisdictional reviews.”).

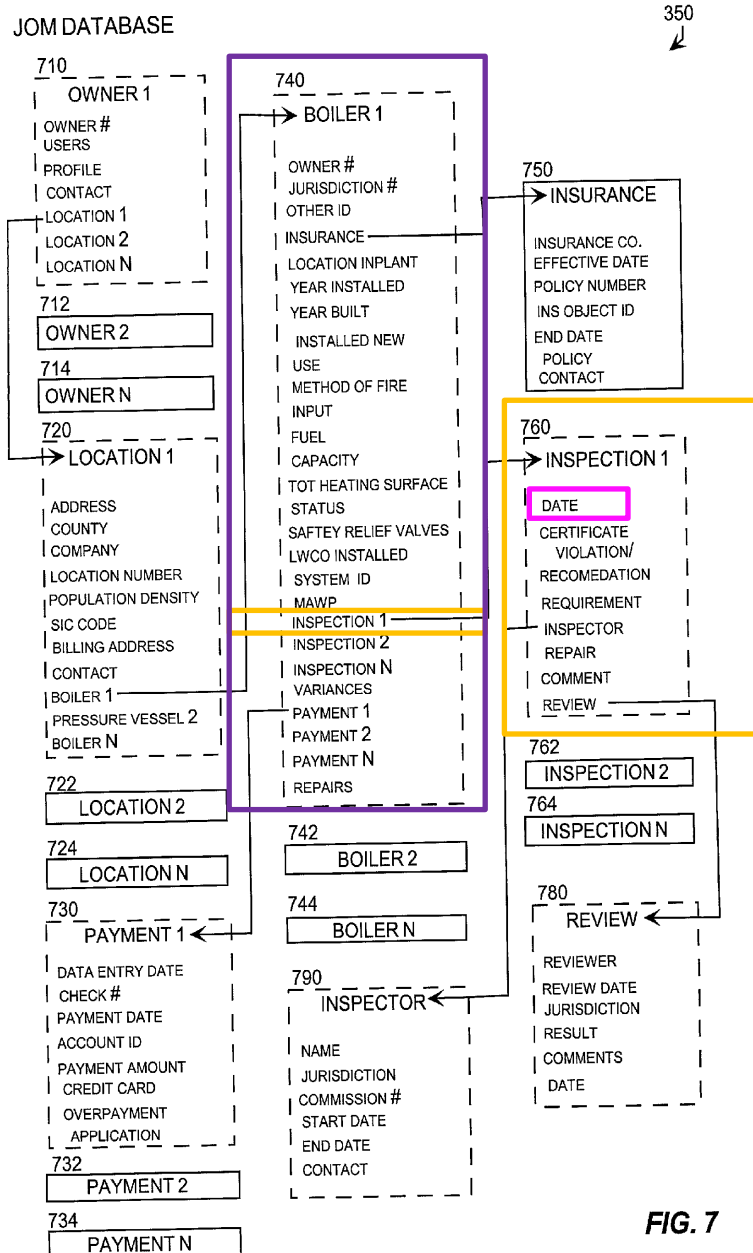


FIG. 7

Claim 12 is obvious for the same reasons as claim 8. EX1003 ¶244; §§V.B.1-

2.

7. Claim 13

The method of claim 8 wherein the noting the deficiencies further comprises: selecting a remedy deficiency deadline based upon the noted deficiency and the date of the inspection; and storing in association with the asset a remedy deficiency deadline.

Key discloses, or it would have been obvious to include as part of Key, the steps of claim 13. EX1003 ¶¶247-248.

As discussed in step [8i], Key discloses that its inspection reports include noting violations and recommendations and that violations may result in block a certificate from issuance. *See also* EX1003 ¶¶248, 78, 231-234; step [8i]. Key further discloses that “[v]iolations must be rectified before the jurisdiction will allow the object to be placed into service” and that repairs are arranged to be done by an “authorized repairer” to make the object compliant, which a POSA would have understood needed to be done within the compliance deadline (or logically, within a specified period to perform an action such as a repair as was common in the field, which could depend on the particular problem identified or action to be taken). EX1005, [0053], [0191]; EX1003 ¶248; EX1007, 9:37-40; EX1017, [0034]; EX1019, [0062], [0081], claims 8, 15, 18; EX1025, [0109], [0147]; EX1003 ¶248. Such information would be stored with the asset along with the other information, as discussed above regarding Figure 7 of Key. *See also* EX1003 ¶248. Further confirming obviousness, Patent Owner cannot plausibly argue these steps are

inventive as the '966 patent provides no details . *See generally* EX1001; EX1002, 139-40. *See also Trustees of Columbia Univ.*, 620 F. App'x at 933; *Streck*, 665 F.3d at 1288.

Claim 13 is obvious for the same reasons as claim 8. EX1003 ¶247; §§V.B.1-2.

8. Claim 14

The method of claim 13 further comprising receiving bids to perform a suitably compliant remedy of the deficiency from a group of qualified contractors; and presenting to the owner a compilation of the bids for selection of a contractor to remedy the deficiency.

The combination of Key and Sweeney discloses, or it would have been obvious to include as part of Key, the steps of claim 14 for effectively the same reasons as claim 10 (claim 14 is like claim 10 except applied to contractors to remedy a deficiency instead of inspectors to perform an inspection). EX1003 ¶¶249-251.

As discussed in step [8f] and claim 10, Sweeney discloses a bid selection process whereby multiple qualified contractors submit bids that are presented to the asset owner which then selects a winning bid. *See also* EX1003 ¶250. For example, as to the bid-selection process, as explained in step [8f] and claim 10, Sweeney discloses an “online bid submission form ... provided to a plurality of contractors for use in submitting bids” and that “[t]he asset owner can be provided with online access to the submitted bids ... in order to select[] a winning bid from the submitted

bids,” that is, the owner selects the contractor (in Key’s JOM, the contractor performs the repair to remedy the deficiency). EX1006, [0043]-[0044], FIG. 1; EX1003 ¶250. Sweeney further includes that the bid submissions include contractor qualifications, among other things (similar to Key, McKinney and other references discussed herein that demonstrate the knowledge a POSA that a qualified service person—whether inspector, contractor, etc.—are advantageously used). EX1006, cl. 25, [0014]; EX1003 ¶251; EX1005, [0053] (“authorized repairer makes the necessary changes to bring the object within specifications”).

Claim 14 is obvious for the same reasons as claims 8 and 13. EX1003 ¶249; §§V.B.1-2.

9. Claim 15

The method of claim 14 further comprising: based upon the owner selecting the contractor, scheduling the contractor to remedy the deficiency based upon the remedy deficiency deadline, the contractor's availability, and the asset availability.

The combination of Key and Sweeney discloses, or it would have been obvious to include as part of Key, the step of claim 15, which is nothing more than performing routine scheduling based on relevant availability and deadlines, for the same reasons as claim 11. EX1003 ¶¶252-254. Claim 15 is obvious for the same reasons as claims 8, 11, and 14. EX1003 ¶252; §§V.B.1-2.

10. Claim 16

The method of claim 8 further comprising: compiling compliance report including the noted deficiency.

Key discloses, or it would have been obvious to include as part of Key, the step of claim 16 for the same reasons as claim 8, step [8i]. EX1003 ¶255-256. To the extent it requires a compilation compliance report from multiple inspections, it is likewise disclosed by Key, or obvious in view of the prior art (in other words, this claim would amount to nothing more than a routine summary report that allows a user, such as the jurisdiction, to easily view and understand the status of compliance and inspections including violations for regulated assets). EX1003 ¶255; EX1005, [0152], [0176]; EX1031, [0045], [0051]-[0052], [0059]; EX1032, [0110], [0127]; EX1033, [0005], [0059], [0067], cls. 12, 21, 30, FIG. 11.

Claim 16 is obvious for the same reasons as claim 8. EX1003 ¶256; §§V.B.1-2.

VI. Section 314 Denial is Unwarranted

Because no trial date has been set, there is no need to engage in the analysis under *Apple Inc. v. Fintiv Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential). See *Beckman Coulter, Inc. v. Sirigen II Ltd.*, IPR2022-01206, Paper 12, 16-17 (PTAB Jan. 6, 2023). Even if a trial date is set prior to the Board's institution decision, consideration of the *Fintiv* factors and the Director's June 21, 2022, Memorandum on the Interim Procedure ("Director Memo") favor institution.

Factor 1 is neutral. The district court’s decision on any stay will come after institution and is “based on a variety of circumstances and facts beyond [the Board’s] control and to which the Board is not privy.” *Sand Revolution II, LLC v. Continental Intermodal Group – Trucking, LLC*, IPR2019-01393, Paper 24, 7 (PTAB Jun. 16, 2020) (informative).

Factor 2 favors institution. There is no schedule or trial date. EX1027. Even if one is set, the actual trial will not occur before the Board issues a final decision because the median time-to-trial for civil actions in the Northern District of Illinois is 53.5 months, meaning trial would occur in April 2027 (and potentially even later here, given there is no schedule). EX1028, 47; Director Memo, 8-9 & n.12.

Factor 3 favors institution. The district court case is in its infancy. There is no schedule or trial date, no discovery has occurred, and the district court has invested no time on the merits.

Factor 4 favors institution. Petitioner expects its invalidity positions in district court will be different from the grounds here (*e.g.*, product prior art). If a trial date is set before the Board’s institution decision, such trial date is set to occur before a final written decision here, and the Board institutes this IPR, Petitioner stipulates that it will not pursue invalidity on the same grounds in district court. *See Fintiv*, IPR2020-00019, Paper 11, 12-13; *Sand Revolution*, IPR2019-01393, Paper 24, 12.

Factor 5 is neutral. The parties are involved in the district-court case.

Factor 6 favors institution. Petitioner's Grounds are compelling. *Fintiv*, IPR2020-00019, Paper 11, 14-15; Director Memo, 4-5.

VII. Conclusion

The challenged claims are unpatentable. Petitioner requests cancellation.

Respectfully submitted,

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Dated: July 27, 2023

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CERTIFICATE OF COMPLIANCE

I hereby certify that this paper complies with the type-volume limitation of 37 C.F.R. §42.24 (as determined by the Microsoft Word word-processing system used to prepare this paper) because it contains 13,890 words, excluding the parts of the paper exempted by 37 C.F.R. §42.24(a).

REICHMAN, JORGENSEN, LEHMAN &
FELDBERG LLP

Dated: July 27, 2023

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing Petition for *Inter Partes* Review, the Exhibits listed on the List of Exhibits, and Power of Attorney were served on July 27, 2023 pursuant to 37 C.F.R. §§42.6 and 42.105 via Federal Express, upon:

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