

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS**

TEGRIS, INC.,	)	
	)	
Plaintiff,	)	Case No. 22-cv-5741
	)	
vs.	)	
	)	
BRYCER, LLC and BRYCER	)	
MANAGEMENT, INC.,	)	
	)	
Defendants.	)	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff, Tegriss, Inc., (“Tegriss”), by counsel, for its Complaint against the Defendants, Brycer, LLC and Brycer, Inc. (collectively “Brycer”) alleges:

PARTIES

- 1) Tegriss is a Washington corporation with its principal place of business at 5202 Olympic Drive, NW, Suite 202, Gig Harbor, WA 98335.
- 2) Tegriss developed innovative methods and software for maintaining compliance with state and local laws regarding fire safety documentation.
- 3) Brycer, LLC is a Delaware limited liability company with its principal place of business at 4355 Weaver Parkway, Suite 230, Warrenville, IL 60555. See <https://apps.ilsos.gov/corporatellc/CorporateLlcController>. (last visited 10/18/2022)
- 4) Brycer Management, Inc. is an Illinois corporation with its principal place of business at 4355 Weaver Parkway, Suite 230, Warrenville, IL 60555. See <https://apps.ilsos.gov/corporatellc/CorporateLlcController>. (last visited 10/18/2022)

5) Upon information and belief, Brycer Management, Inc. is the sole member of Brycer, LLC and has directed and controlled the actions of Brycer, LLC complained of herein.

6) According to the Illinois Secretary of State's online business search portal, Brycer LLC is managed by Matthew Rice, Bryan Schultz, and Michael Rice, whose addresses are listed as 4355 Weaver Parkway, Suite 230, Warrenville, Illinois, 60555. Publicly available records do not disclose the members for Brycer LLC. See <https://apps.ilsos.gov/corporatellc/CorporateLlcController>. (last visited 10/18/2022)

JURISDICTION AND VENUE

7) The jurisdiction of this Court is proper under 28 U.S.C. §§ 1331, 1338. This action is a suit for patent infringement under the patent laws of the United States, 35 U.S.C. § 1 *et. seq.*

8) The asserted patent is United States Patent No. 11,126,966 (the “'966 Patent”). (Exhibit 1 is a true and complete copy of the '966 Patent which Tegriss incorporates herein by reference.)

9) Brycer resides in the Northern District of Illinois, and venue in this District is proper under 28 U.S.C. §§ 1391(b), 1400(b).

10) Because it has its primary place of business in this District, Brycer is subject to personal jurisdiction this District.

BACKGROUND AND INVENTION HISTORY

11) Since 1966, Robert Moren has been designing fire sprinkler systems. Robert started Tegriss in 1981. Andrew Moren, Robert's son, joined Tegriss in 1991.

12) In 2004, Robert and Andrew were testing a fire hydrant to collect fire hydrant flow data for designing the fire sprinkler system in the nearby building. The fire hydrant was in extremely poor condition. Over the next couple years, Robert and Andrew developed novel ways to allow authorities, asset owners, and professional inspectors to collaborate on a collective database for improving communication in the fire and life safety industry.

13) Robert and Andrew started to create a unique system that moved fire safety inspection reports between the stakeholders at the right times and with the specific information needed to ensure the asset was properly managed.

14) Andrew and Robert researched the patentability of the method and began the patent process in 2007 when they filed an application for a utility patent. They also began building the software-as-a-service online platform that embodied the novel method and focused Tegriss as a business to provide this new service to the fire and life safety industry. Their patent application issued as the '966 Patent on September 21, 2021.

15) In addition to securing patent protection over its systems, Tegriss copyrighted the software program and its marketing material including white papers, podcasts, user guides, and more. Tegriss has multiple U.S. Copyright Registrations related to its Tegriss Fire software and systems.

16) Tegriss created many useful features for its stakeholders and invested significant resources teaching the fire inspection industry the benefits of this new system. This new system comprised a novel paradigm shift in solving issues with inspection compliance, deficient systems, and protecting certified work for inspectors.

17) Tegriss developed case studies to show the success of the method and the Tegriss platform. Tegriss marked its presentations and marketing material with a patent-pending notice.

18) In 2010, Tegriss met with the National Fire Sprinkler Association (NFSA) to discuss its new system. The NFSA acknowledged the novelty of the Tegriss platform. Tegriss told NFSA it had a pending patent application. Over several months, Tegriss worked with the NFSA to develop a plan to educate stakeholders about the benefits of the novel Tegriss platform. The NFSA stopped discussions with Tegriss to partner with “a friend of theirs in Illinois” (upon information and belief, Brycer) offering a like solution.

19) Brycer LLC started in 2011 and acquired new customers for its now infringing system.

20) Several of Brycer’s customers told Tegriss that Brycer’s program “looked exactly like [Tegriss’] and does the exact same thing.”

21) Brycer has not only modeled its system after Tegriss’ technology but also has mimicked Tegriss’ marketing materials, including those protected by

copyright registrations. Upon information and belief Brycer had access to Tegrís' marketing materials and copied the look, feel, content, and expression thereof.

22) Tegrís attended industry presentations with Brycer and informed Brycer and other attendees that Tegrís had a pending patent application for its novel system. Brycer said that it did not think Tegrís could patent the system. The issuance of the '966 Patent proved that belief false.

23) In April 2012, Tegrís told NFSA that Brycer was copying the Tegrís method and platform.

24) Specifically, in April 2012, Tegrís's legal counsel told Brycer's legal counsel that Tegrís would assert its patent rights and copyrights when issued or registered. Tegrís's legal counsel told Brycer: *"Until then, naturally, your client might consider trimming its sails to steer clear of potential issues of infringement of intellectual property."*

25) Brycer ignored these notices and continued to develop and expand deployment of its infringing systems. Brycer now services more than 650 jurisdictions.

26) For example, in 2015, Brycer partnered with Western States Fire Marshal Association to win an exclusive marketing partnership to provide recommendation for Brycer's system in Washington, Oregon, California, Alaska, Nevada, Arizona, Montana, Idaho, Utah, Hawaii, and W. Pacific Islands.

27) In 2015, Brian Schultz of Brycer proposed to acquire Tegrís. Tegrís and Brycer entered an NDA and discussed Tegrís' assets, including the then pending

patent application and registered copyright. Tegriss proposed a partnership, but Brycer rejected the proposal. Brycer subsequently began servicing new customers, including Seattle and Bellevue in Washington state.

28) Tegriss estimates that about 2.5 million reports per year are being processed using its patented method and copyrighted software, with annual growth between 40%-50%.

29) Tegriss estimates the national market for inspection reports for fire and life safety equipment to be 100 million reports per year. The Tegriss platform has become a source of revenue for cities, a protection of work for inspectors, and an insurance metric for basing insurance rates for property owners.

30) Brycer's current revenue is about \$17 per report and has estimated annual revenue of at least \$35 million. Tegriss estimates Brycer's revenue from its infringement over the last 6 years to be at least \$100 million.

31) One of the novel features Tegriss created was a way for the authorities having jurisdiction ("AHJs") to add their own fee to each report creating an effective revenue stream for the AHJs. Brycer copied this feature and many of its AHJs add an 'AHJ Fee' ranging from about \$5 to \$60 per report, with some municipalities such as Chicago charging as high as \$300 per report.

32) Tegriss estimates that cities like Chicago generate over \$1 million of revenue per year using Tegriss' patented and copyrighted methods.

33) Brycer has infringed and continues to infringe the '966 Patent and its copyrighted software. Because Tegrís repeatedly informed Brycer of its patent infringement, Brycer's infringement has been and continues to be willful.

34) Tegrís's patented method solves several industry problems by tracking each asset and prompting collaboration from each stakeholder when needed. AHJs were automatically sending timely notifications to inform and remind property owners what was needed; property owners were compelled to get inspections done; and inspection contractors were getting hired to perform their ITM services. Their reports were inputted into the system, giving everyone a permanent record of compliance. And then the automated process restarting when the periodic inspection was next due. This is the System and Methods for a Web-Based Inspection Compliance Registry and Communication Tool.

35) The Tegrís software platform was written to broadly manage any type of asset with a small amount of customization for specific vertical information, like reports details.

COUNT I

DIRECT INFRINGEMENT OF U.S. PATENT NO. 11,126,966

36) Tegrís incorporates by reference the foregoing paragraphs as if set forth verbatim.

37) Robert and Andrew invented the methods described and claimed in the '966 Patent, *Systems and Methods for a Web Based Inspection Compliant Registry and Communication Tool*. (Ex. 1 attached). The United States Patent and

Trademark Office issued the ‘966 Patent on September 21, 2021. Tegriss owns the ‘966 Patent by assignment from the named inventors.

38) The ‘966 Patent describes a novel method and apparatus for using a web registry to track the inspection compliance of an asset, including without limitation,

- a. notifying an owner of an asset that an inspection is needed to comply with a code;
- b. electronically transmitting a list of at least one qualified inspector to a user;
- c. receiving a completed inspection uploaded from an inspector;
- d. transmitting the completed inspection to an approving authority;
- e. completing a monetary transaction between the asset owner and the inspector when the inspection is approved by the approving authority;
- f. a system for a web-based compliance registry including a database configured to store owned asset information; and
- g. a user interface in data communication with the database configured to show owned asset information on the display. (Ex. 1, Abstract).

39) Claim 8 of the ‘966 Pat. exemplifies the patented technology. Brycer infringes at least independent claim 8 dependent claims 9 – 14, the “Asserted Claims.” Claim 8 recites:

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:

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 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;

analyzing the records of assets from the database to identify notification events;

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;

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;

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 each of the steps of the inspection;

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

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;

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. (Ex. 1, 15:16-16:13)

40) The attached preliminary infringement claim chart illustrates Brycer's infringement of claim 8 through its The Compliance Engine service offering. (Exhibit 2 attached hereto and incorporated herein by reference.)

41) During prosecution of the application that issued as the '966 Patent, the patent examiner initially rejected the claims under 35 U.S.C. § 101 as allegedly being directed to unpatentable subject matter. The examiner withdrew the § 101 rejection following an amendment and response by Tegriss. In particular, in its May 18, 2021, Notice of Allowance, the USPTO stated that Tegriss' claimed process does not recite a mental process nor mathematical concepts but rather "certain methods of organizing human activity grouping." (Exhibit 3 attached hereto and incorporated herein by reference)

42) After further discussion, the USPTO examiner concluded: "[T]he combination of additional elements use the fire hydrant management software in a specific manner over prior art systems by allowing remote users to process inspections in a standard format, track inspection compliance, and pay for inspection of an owned asset. The claim as a whole integrates the certain method of organizing human activity into a practical application." (*Id.*)

43) The Asserted Claims of the '966 Patent contain various combinations of additional elements that integrate the certain methods of organizing human activity into a practical application. The additional claim elements include at least the following:

- a. “retrieving, by a computer-based fire hydrant management software system, real time records of assets from a database, the database being remotely accessible and augmentable by each of the at least three classes of user;”,
- b. “analyzing the records of assets from the database to determine whether an asset requires inspection;”,
- c. “automatically creating, according to computer-executable instructions of the fire hydrant management software, a standard format inspection list, based upon the analysis of records of assets from the database, wherein the standard form inspection list includes each asset due for inspection and each asset within a designatable interval of being due for inspection;”,
- d. “for each asset on the inspection list, according to computer-enabled instructions of the fire hydrant management software, retrieving a list of qualified inspectors according to designatable attributes including proximity to the asset, wherein an inspector, upon accessing the web registry, can review and update information, including location;”,
- e. “for each asset on the inspection list, generating a standard format notice notifying the approval authority of the status of the assets assigned to

the approval authority, and wherein the approval authority, upon accessing the compliance registry, may update and review the status of the assets;”,

f. “for each asset on the inspection list, generating, according to computer-executable instructions of the fire hydrant management software, a standard format notice notifying an owner of the asset of an impending deadline for the inspection such notice to include the list of qualified inspectors for the asset, a description of the type of inspection, and a cost associated with the type of inspection, and wherein the owner of the asset, upon accessing the web-based registry, may update and review the status of the assets assigned to the owner;”,

g. “receiving, by a computer-based system, at a server through an internet portal the server in communication with the web-based registry, information that one of the qualified inspectors supplies, the information garnered by performing the required inspection;”,

h. “retrieving, by a computer-based fire hydrant management software system, a standard format report template configured to the asset, compiling a report based upon the information the inspector supplies;”,

i. “transmitting, by a computer-based system, the completed inspection report, based on the report template and the information garnered by performing the inspection, to the approving authority;”,

j. “transmitting, from the approving authority, by the web-based registry, a standard format notice to the owner of the asset, the notice to include a

report of the received information and where the received information includes a noted deficiency;”,

k. “automatically, according to computer-executable instructions of the fire hydrant software, augmenting at the database, the records relative to the asset to reflect the information the inspector supplies when the inspection is approved by the approving authority;” and

l. “after the inspection is approved by the approving authority, completing a monetary transaction between the asset owner and the inspector.”

44) The combinations of additional elements use the fire hydrant management software system in a specific manner that is novel over prior art systems by allowing remote users to process inspections in a standard format, track inspection compliance, and pay for inspection of an owned asset.

45) The Asserted Claims are patent eligible under § 101. The multiple additional elements of the Asserted Claims transform the nature of the Asserted Claims into a patent-eligible application of that idea.

46) In practice, the Asserted Claims amount to “significantly more” than a patent on an ineligible concept.

47) The Asserted Claims do not broadly and generically claim use of the Internet to perform an abstract business practice.

48) When the limitations in the Asserted Claims are taken together as an ordered combination, the Asserted Claims recite an invention that is not merely the routine or conventional use of the Internet.

49) The Asserted Claims do not attempt to preempt every application of the idea of coordinating compliance with fire inspection laws and regulations.

50) The Asserted Claims recite specific ways to automate the compliance process that incorporate elements from multiple sources to solve a problem faced by fire departments, municipalities, inspection contractors, and building owners.

51) The Asserted Claims include additional features that ensure they are more than a drafting effort designed to monopolize the abstract idea.

52) The claimed solution amounts to inventive concepts for resolving this building inspection problem, rendering the Asserted Claims patent eligible.

53) Without permission from Tegriss, Brycer has been and continues to infringe the Asserted Claims of the '966 Patent under 35 U.S.C. § 271(a). Tegriss requests an award of its actual damages caused by such infringement pursuant to 35 U.S.C. § 284.

54) Brycer has continued or does continue its infringing activities after receiving notice of the '966 Patent.

55) Such infringement is willful, entitling Tegriss to the recovery of treble damages pursuant to 35 U.S.C. § 284.

56) This is an exceptional case justifying an award of attorneys' fees and costs to Tegriss pursuant to 35 U.S.C. § 285.

PRAYER FOR RELIEF

Tegriss prays that the Court enter Judgment in its favor against the Brycer Defendants granting the following relief:

- A. a permanent injunction prohibiting further infringement by all Brycer and its officers, agents, affiliates, servants, and employees, and all other persons in active concert or participation with them from infringing the '966 Patent, including against all manufacture, use, offer for sale, and sale of The Compliance Engine;
- B. an award of Tegriss's actual damages, including costs, prejudgment interest, and post judgment interest;
- C. a trebling of damages for willful infringement;
- D. a finding that this is an exceptional case and an award of Tegriss's attorneys' fees and costs;
- E. a declaration that the '966 Patent is valid, enforceable, and infringed by the Brycer Defendants;
- F. such other and further relief as the Court deems just.

DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38, Tegriss demands trial by jury of all issues so triable.

Dated: October 18, 2022

Respectfully submitted,

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EXHIBIT 1
U.S. Patent 11,126,966



US011126966B2

(12) **United States Patent**
Moren et al.

(10) **Patent No.:** **US 11,126,966 B2**

(45) **Date of Patent:** **Sep. 21, 2021**

(54) **SYSTEMS AND METHODS FOR A WEB
BASED INSPECTION COMPLIANCE
REGISTRY AND COMMUNICATION TOOL**

(75) Inventors: **Andrew Stanton Moren**, Gig Harbor,
WA (US); **Robert J. Moren**, Gig
Harbor, WA (US)

(73) Assignee: **TEGRIS, INC.**, Gig Harbor, WA (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 1138 days.

(21) Appl. No.: **12/011,202**

(22) Filed: **Jan. 23, 2008**

(65) **Prior Publication Data**

US 2009/0157521 A1 Jun. 18, 2009

Related U.S. Application Data

(60) Provisional application No. 60/886,269, filed on Jan.
23, 2007, provisional application No. 60/977,870,
filed on Oct. 5, 2007, provisional application No.
60/981,091, filed on Oct. 18, 2007, provisional
application No. 60/981,784, filed on Oct. 22, 2007,
provisional application No. 60/969,905, filed on Sep.
4, 2007, provisional application No. 60/981,782, filed
on Oct. 22, 2007.

(51) **Int. Cl.**
G06Q 10/10 (2012.01)

(52) **U.S. Cl.**
CPC **G06Q 10/10** (2013.01)

(58) **Field of Classification Search**
CPC G06Q 50/163; G06Q 10/10
USPC 705/313
See application file for complete search history.

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Primary Examiner — Lynda Jasmin

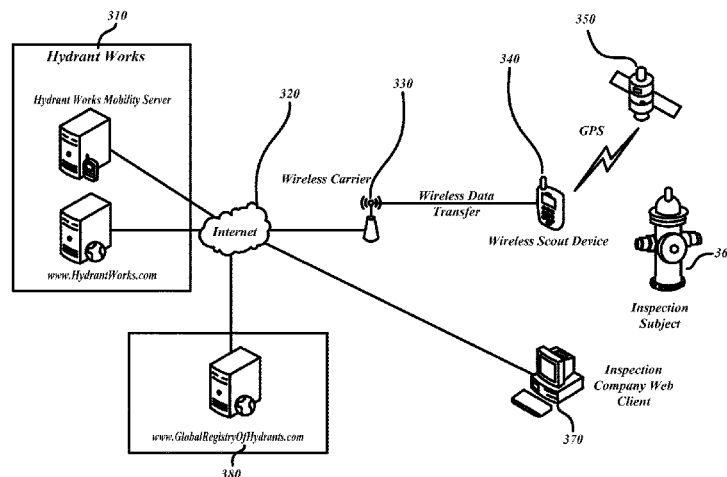
Assistant Examiner — Ehrin L Pratt

(74) *Attorney, Agent, or Firm* — Richard T. Black; Foster
Garvey PC

(57) **ABSTRACT**

A 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. Electronically transmitting a list of at least one qual-
ified inspector to a user. Receiving a completed inspection
uploaded from an inspector. Transmitting the completed
inspection to an approving authority. Completing a mon-
etary transaction between the asset owner and the inspector
when the inspection is approved by the approving authority.
A system for a web based compliance registry including a
database configured to store owned asset information. A user
interface in data communication with the database config-
ured to show owned asset information on the display. A
handheld device configured to wirelessly connect to the user
interface and with the database in order to input and view
owned asset data wirelessly and specific information based
on its global position.

16 Claims, 24 Drawing Sheets



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Buildingreports.com, Inc., cached screenshots labeled Exhibits E and F available to customers in 2003.†

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† cited by third party

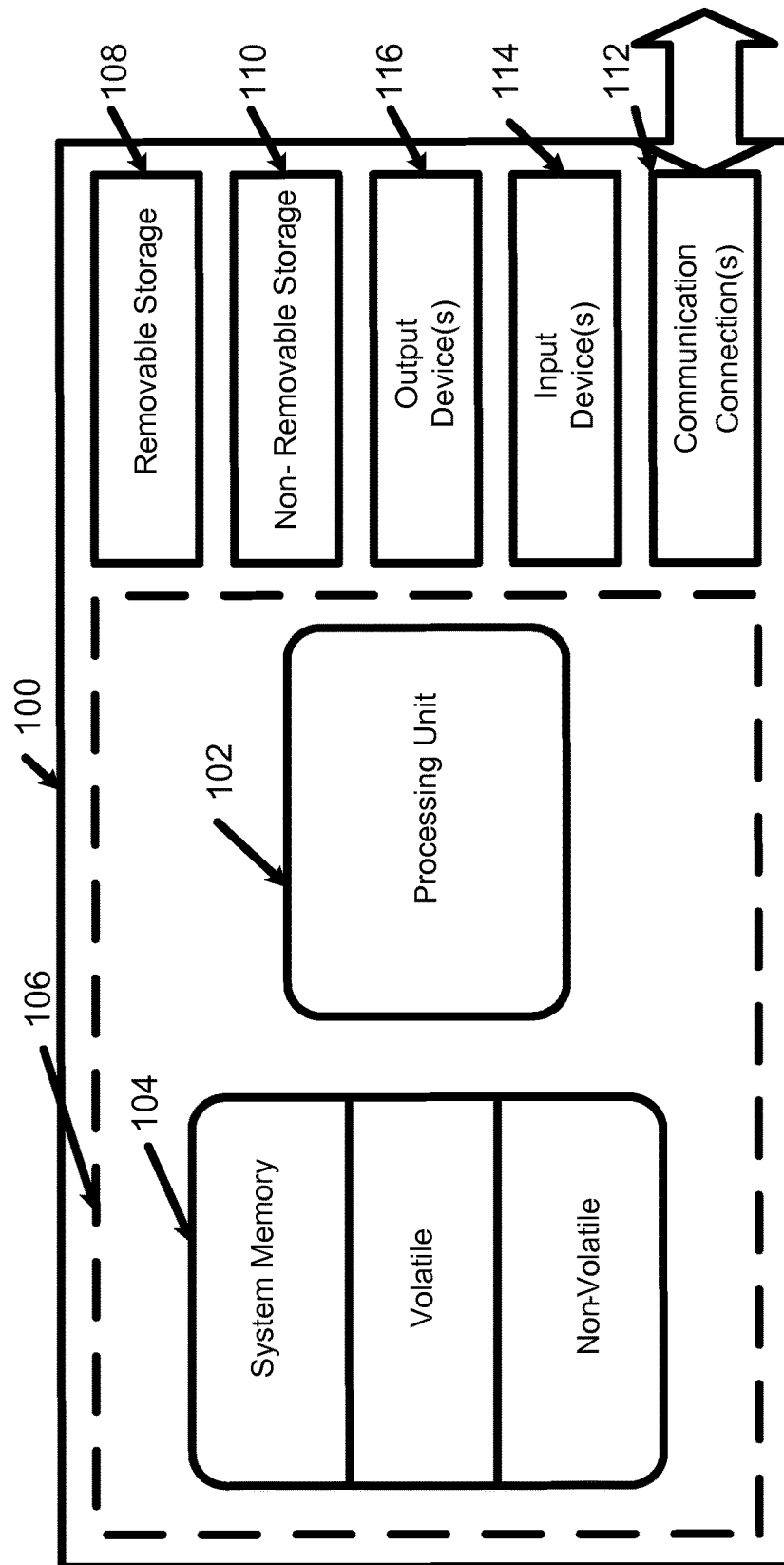


Fig. 1

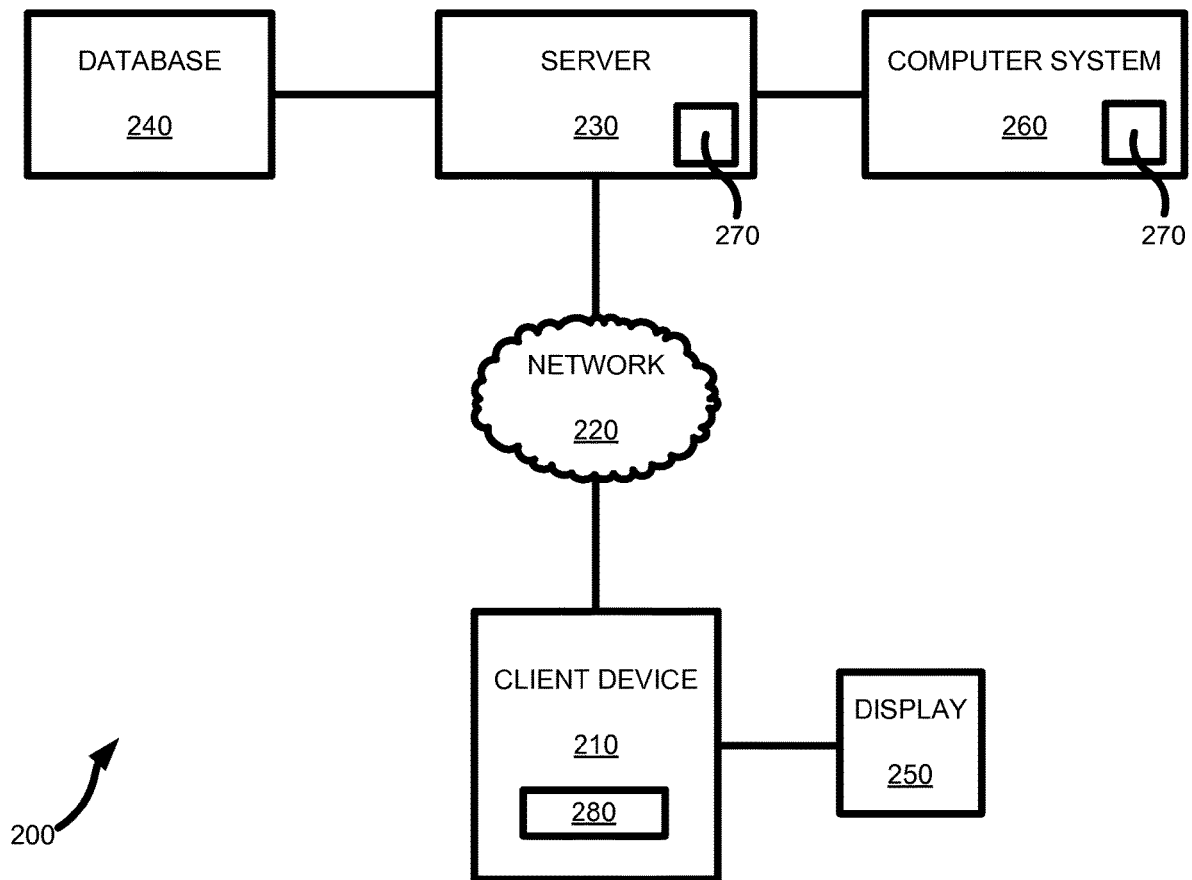


Fig. 2

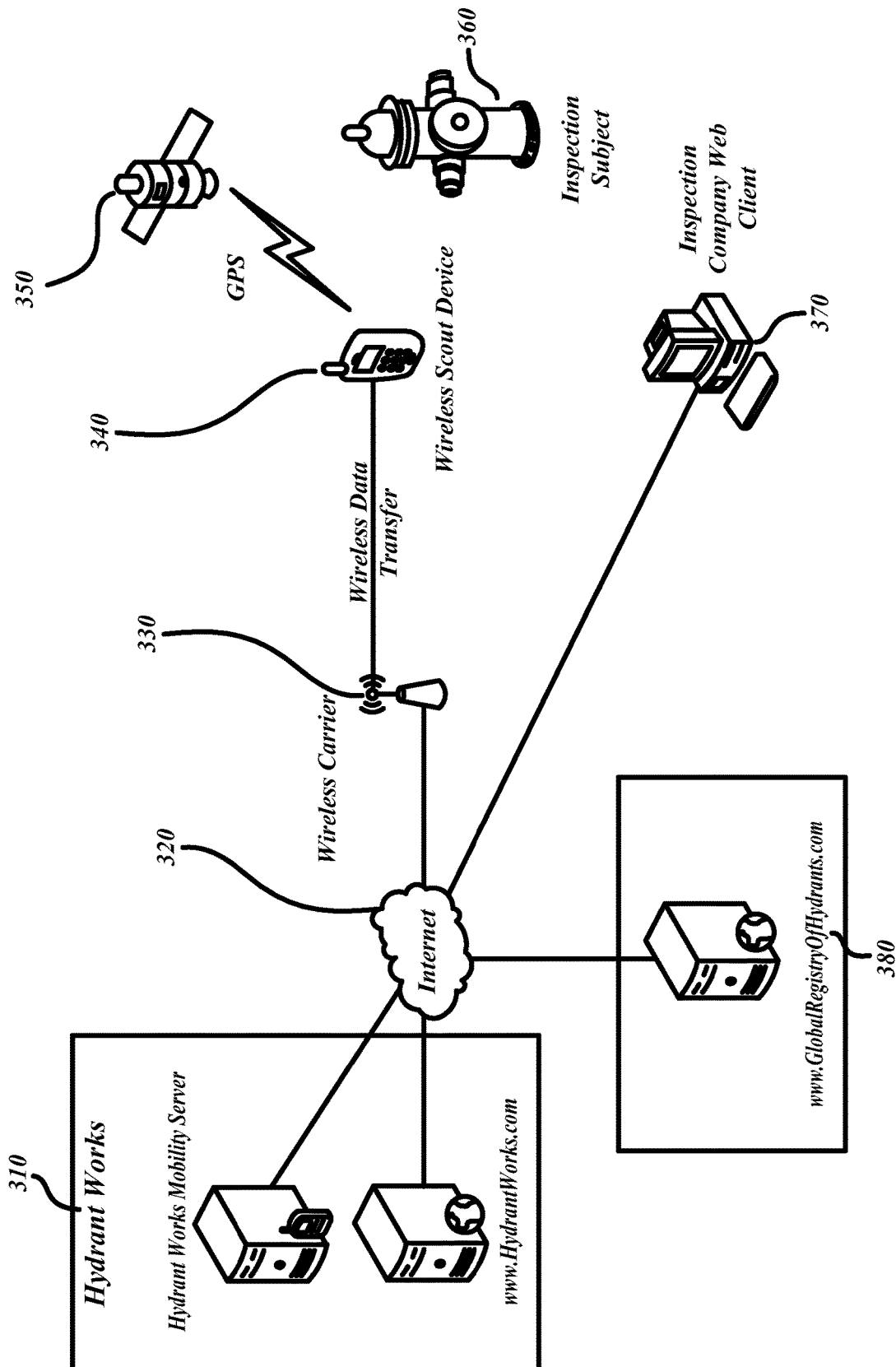
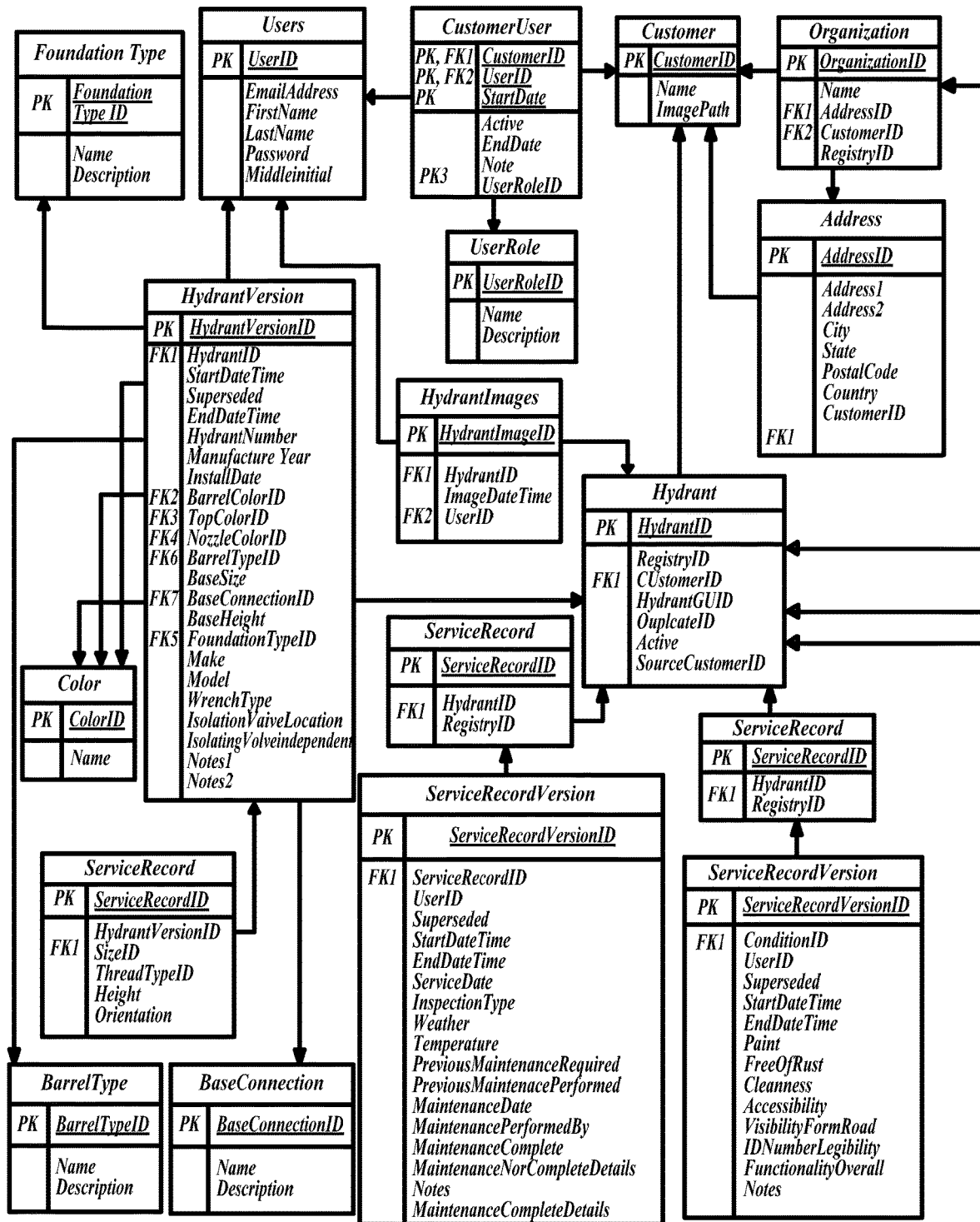


Fig. 3

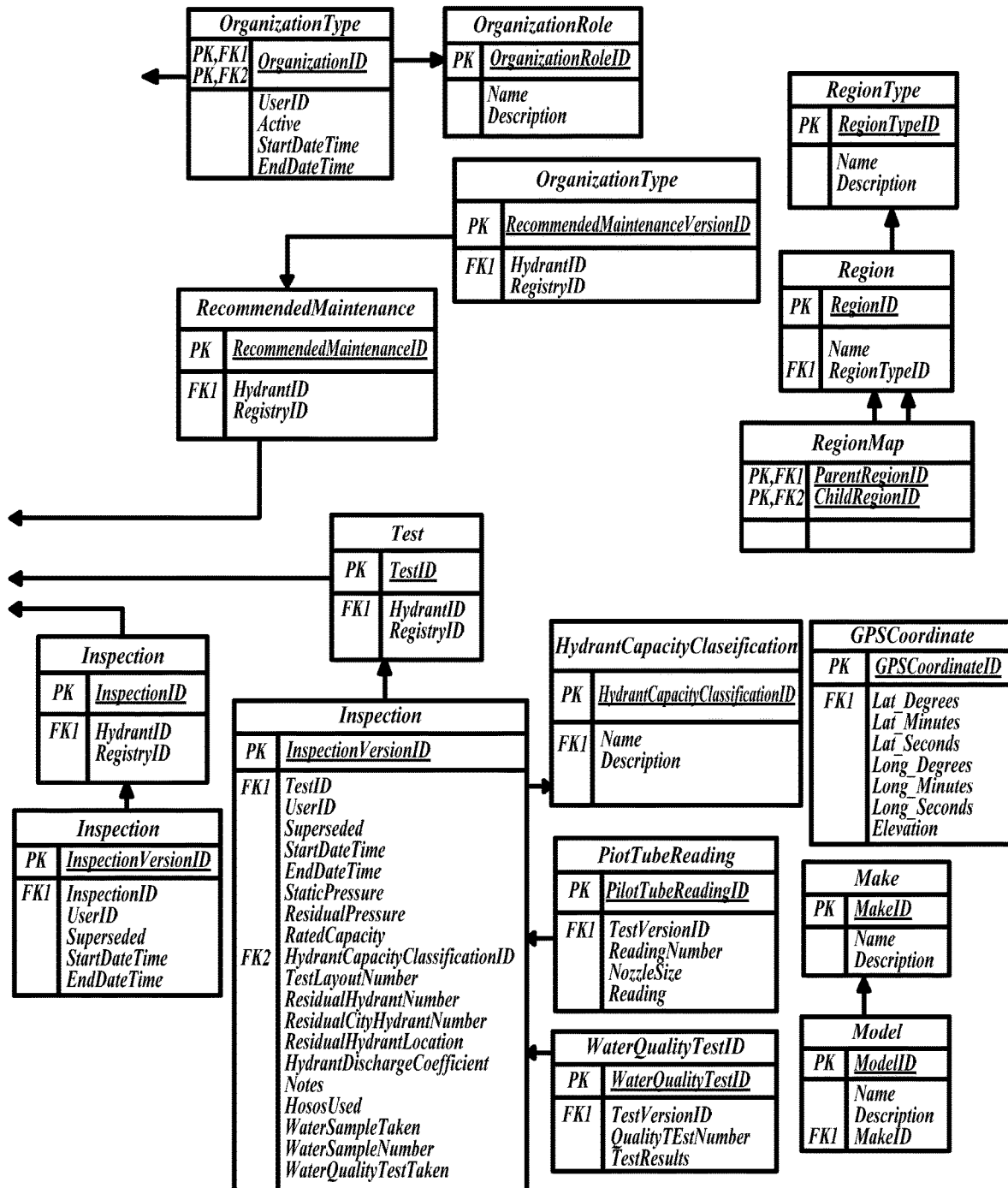
**Fig. 4A**

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**Fig. 4B**

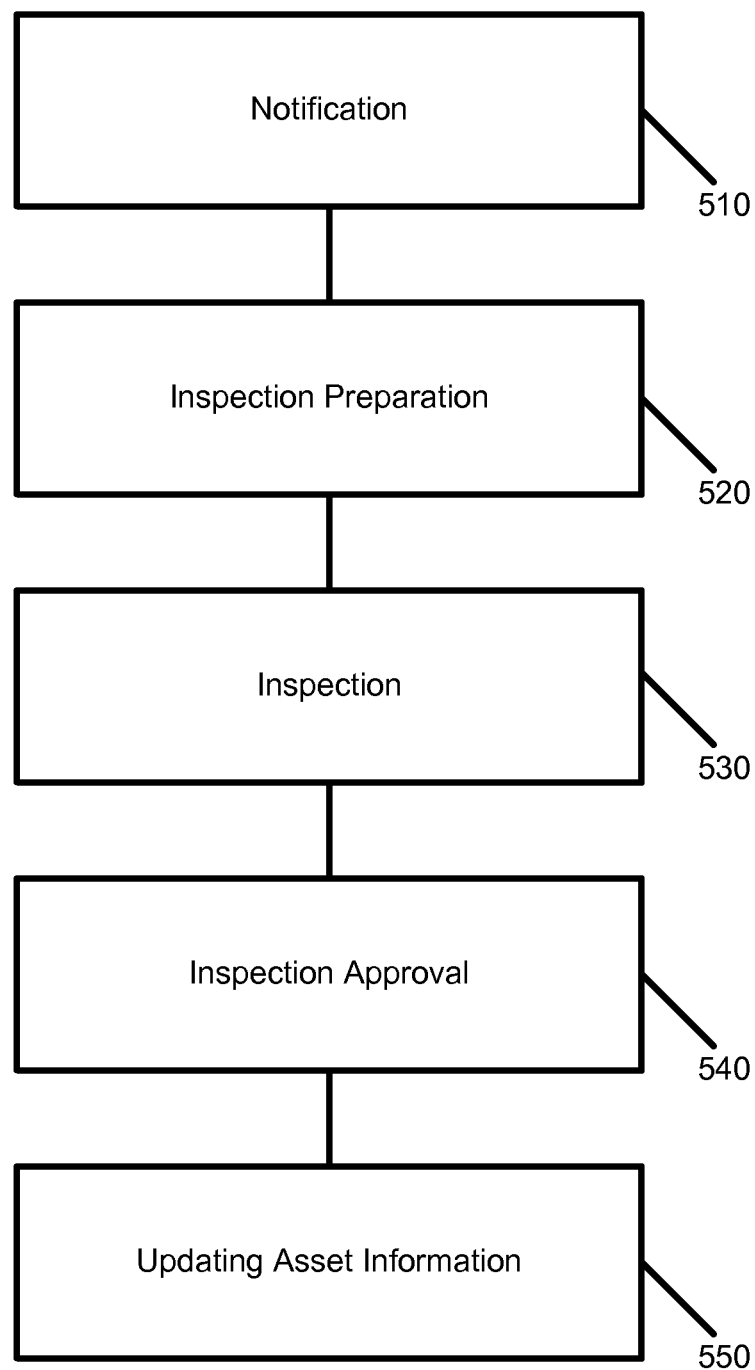


Fig. 5

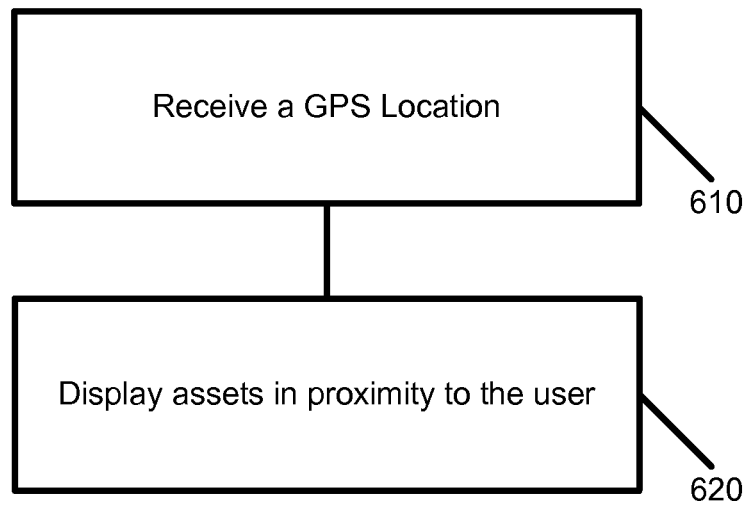


Fig. 6

The diagram shows a web browser window with a title bar that reads "Hydrant Works Inspection System". Inside the window, there is a central rectangular box containing a login form. The form has three input fields: "Email Address", "Password", and "Company Name". Below these fields is a checkbox labeled "Stay logged in.". At the bottom of the form box, there is a link labeled "Forgot Password" and a button labeled "Login".

Fig. 7



HydrantScout

Create Hydrant

Cancel

Hydrant Number

Authority OrganizationID

Address 1

Address 2

City

State

Zip Code

Foundation Type

Barrel Type

Base Connection

Barrel Color

Top Color

Nozzle Color

Manufacture Year

Install Date

Base Size

Base Height

Make

City of Mollalla

Concrete

Dry Type

Bolts

Blue

Blue

Blue

Save & Done

Save & New

Fig. 8

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HydrantScout

Search Criteria

Select Saved Query

Hydrant#

City

State

Zip

Make

Model

Hydrant Search

Action	Image	Hydrant #	Address	Make	Model	Barrel	Top	Nozzle
Details			606 Main St Oregon City, OR 97045			Orange	Orange	Orange
Details			288 6 th St Oregon City, OR 97045			Orange	Orange	Orange
Details			288 7 th Street Oregon City, OR 97045			Orange	Orange	Orange
Details			686 Mail St Oregon City, OR 97045			Orange	Orange	Orange
Details			132 9 th St Oregon City, OR 97045	MH		Orange	Orange	Orange
Details			888 Main St Oregon City, OR 97045	MH		Orange	Orange	Orange
			523 SR-43					

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Fig. 9

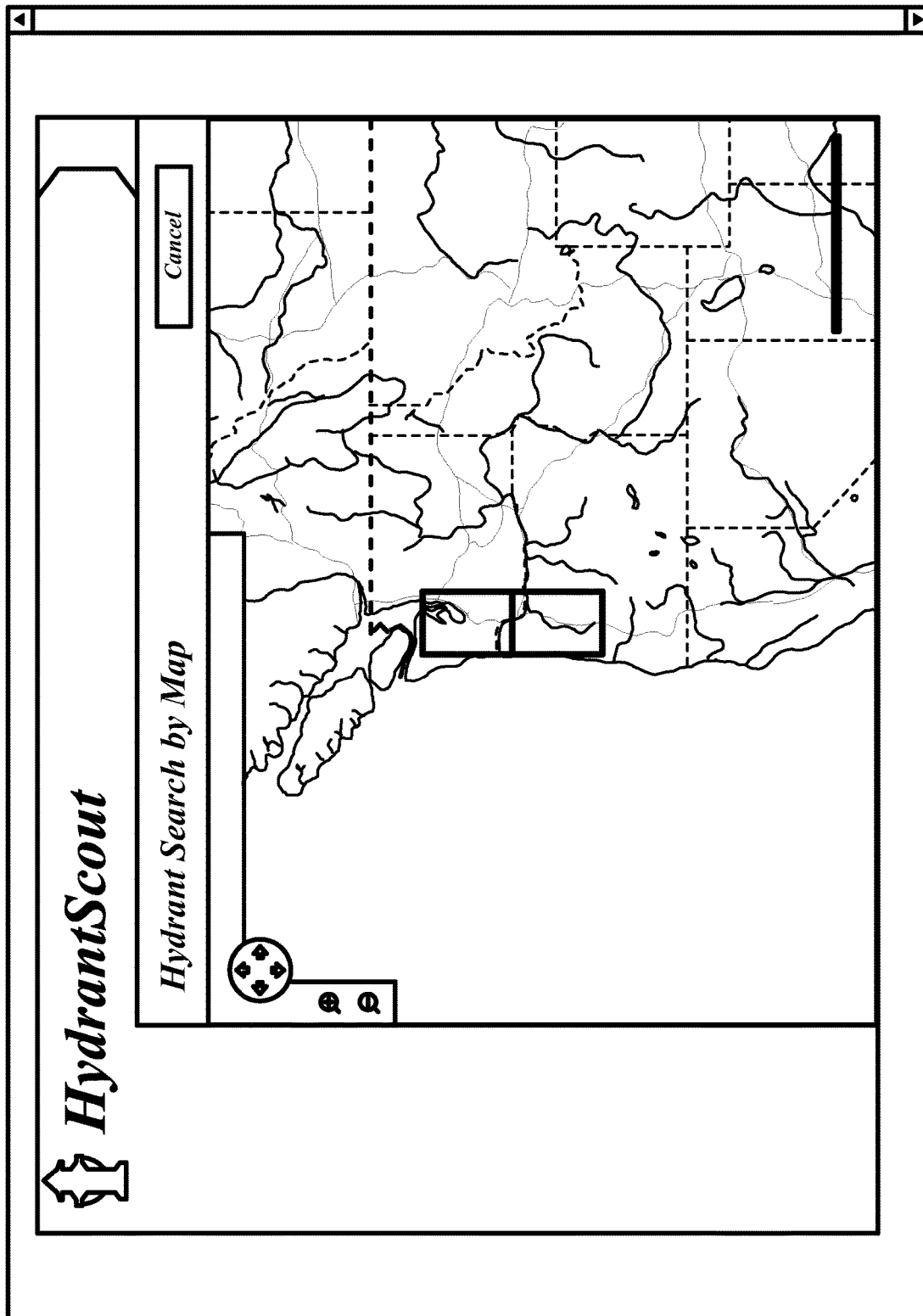


Fig. 10

U.S. Patent

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Hydrant Details		Save
☐ Inspection	Hydrant Number 344	No Image Loaded
☐ Condition Report	Address GPS Lat:45.334380, Long -122.540233 ... R	
☐ Test	Line 1 2200 – Mauri North Shore	
☐ Service Record	Line 2	
☐ Recommended Maintenance	City, State, Zip Oregon City OR ST045	
	Make Model	Barrel Color ☒ Blue
	Install Date	Barrel Type ☒
	Distance from CL	Side Of Road ☒
	Wrench Type	Nozzle Coeff
	Base Size	Gate Valve
	Base Connection ☒	
	Base Elevation	
	Special Markings	
	Notes	
		Nozzles Nozzle Height Size Fitting No records to display

Fig. 11

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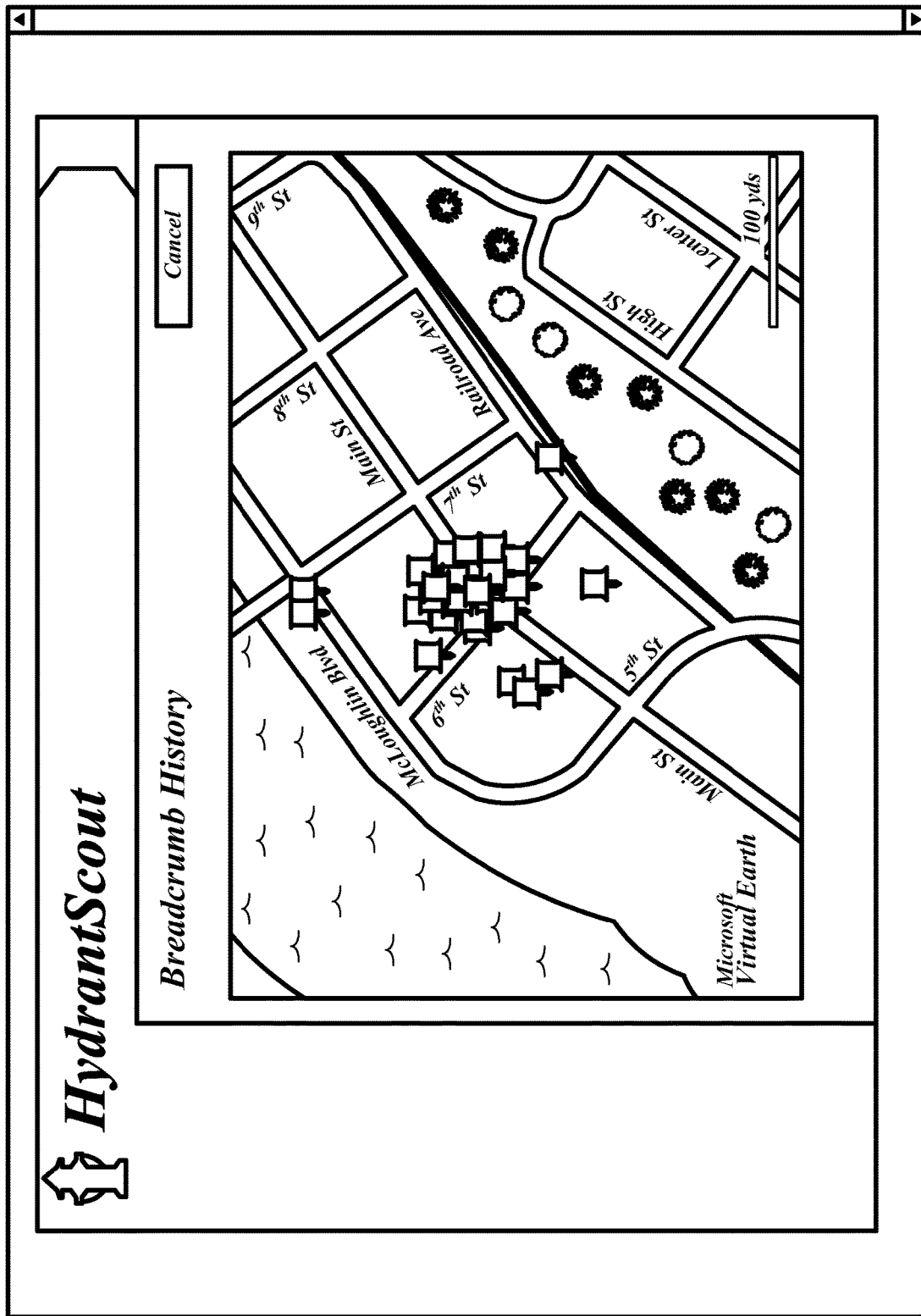


Fig. 12



HydrantScout

Customizable Screen Maintenance

HydrantScout Web Manager

Create Hydrant Wizard

Cancel

Included	Name	Description
☒	Hydrant Number	Hydrant Number
☒	AuthorityOrganLisbonID	AuthorityOrganLisbonID
☒	Address 1	Address 1
☒	Address 2	Address 2
☒	City	City
☒	State	State
☒	Zip Code	Zip Code
☒	Foundation Type	Foundation Type
☒	Barrel Type	Barrel Type
☒	Base Connection	Base Connection
☒	Barrel Color	Barrel Color

Save

Fig. 13



HydrantScout

User Manager

Active Only

Cancel


[Add new record](#)


[Refresh](#)

Email Address	First Name	Last Name	User Role
andrew@fireshield.com	Andrew	Moren	--Choose an option--
robert@fireshield.com	Robert	Moren	--Choose an option--
brain@concretize.com	Brian	Nelson	--Choose an option--
sandyroy@concretize.com	Sandy	Roy	--Choose an option--
rick_stone@concretize.com	Rick	Stone	--Choose an option--

Fig. 14

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The image shows a mobile application interface for 'HydrantScout'. The app has a header with the logo and name. Below the header is a 'Time Card' form. The form contains three main input sections: 'Start Time' with a 'Now' button, a 'Note' field with a text area and a 'Now' button, and 'Stop Time' with a 'Now' button. At the top right of the form is a 'Cancel' button, and at the bottom right is a 'New' button. The entire interface is presented within a window-like frame with standard mobile OS navigation icons at the top.

Fig. 15



HydrantScout

Time Entry

Nelson, Brian

▼

1/16/2008



Cancel

Add new record

Edit

Delete

Start

1/16/2008 8:00:00 AM

End

1/16/2008 12:00:00 PM

Hours

4.00

Note

Refresh

Add new record

Refresh

Fig. 16

Case: 1:22-cv-05741 Document #: 1-1 Filed: 10/19/22 Page 20 of 35 PageID #:35

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HydrantScout

1/13/2008

Time Entry Review

Cancel

First Name	Last Name	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Brian	Nelson				4.00			

Fig. 17

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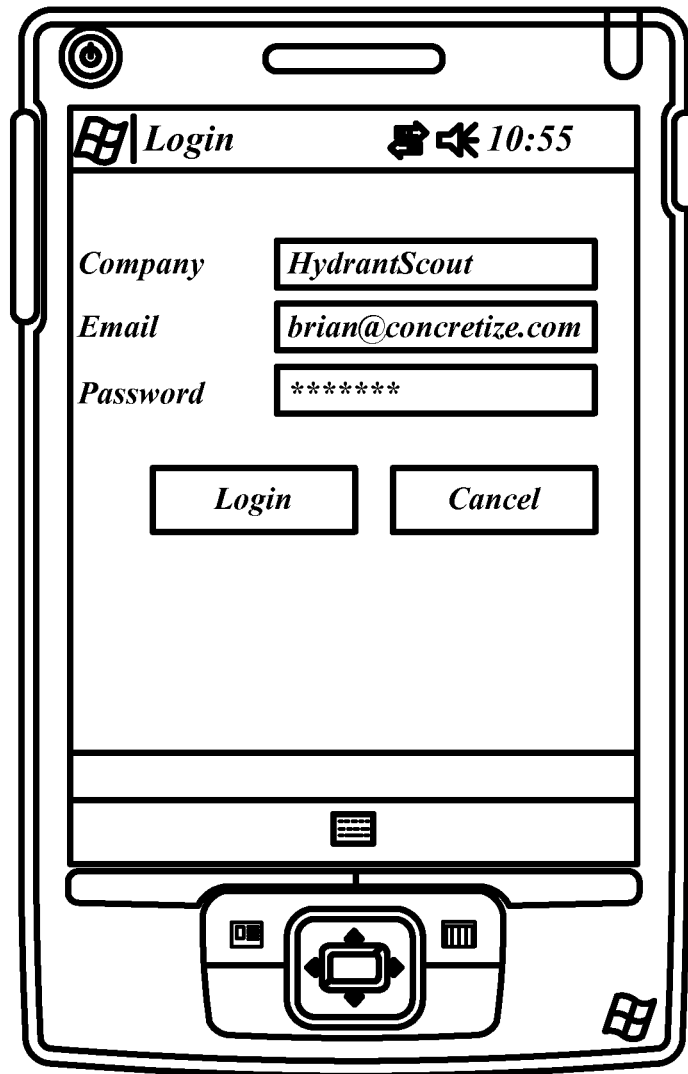


Fig. 18

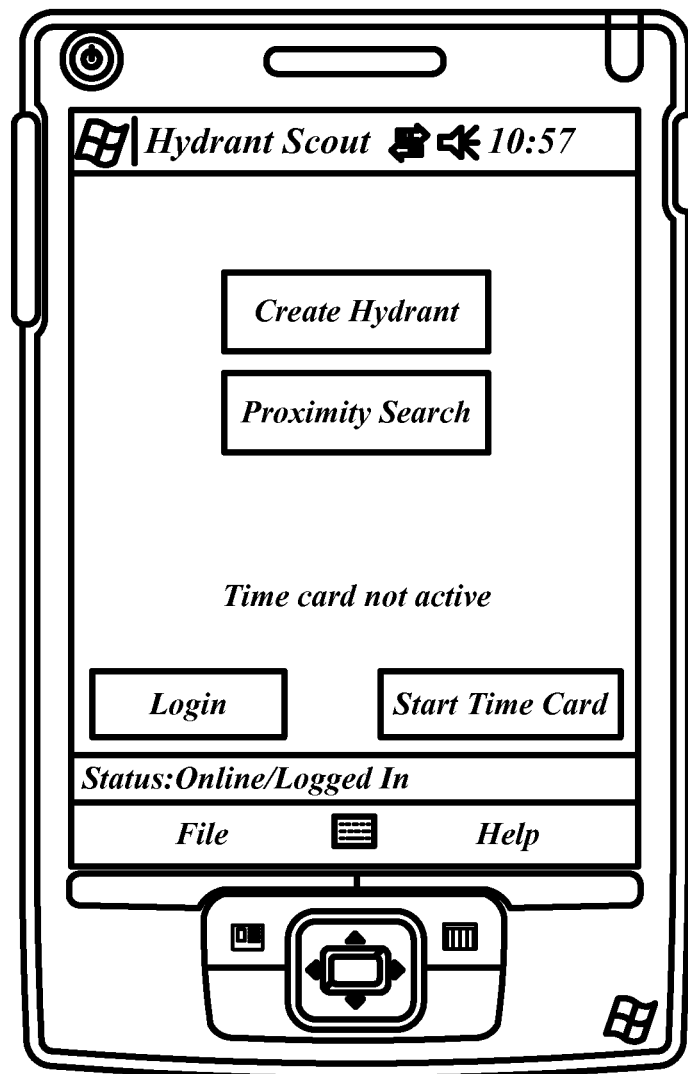


Fig. 19

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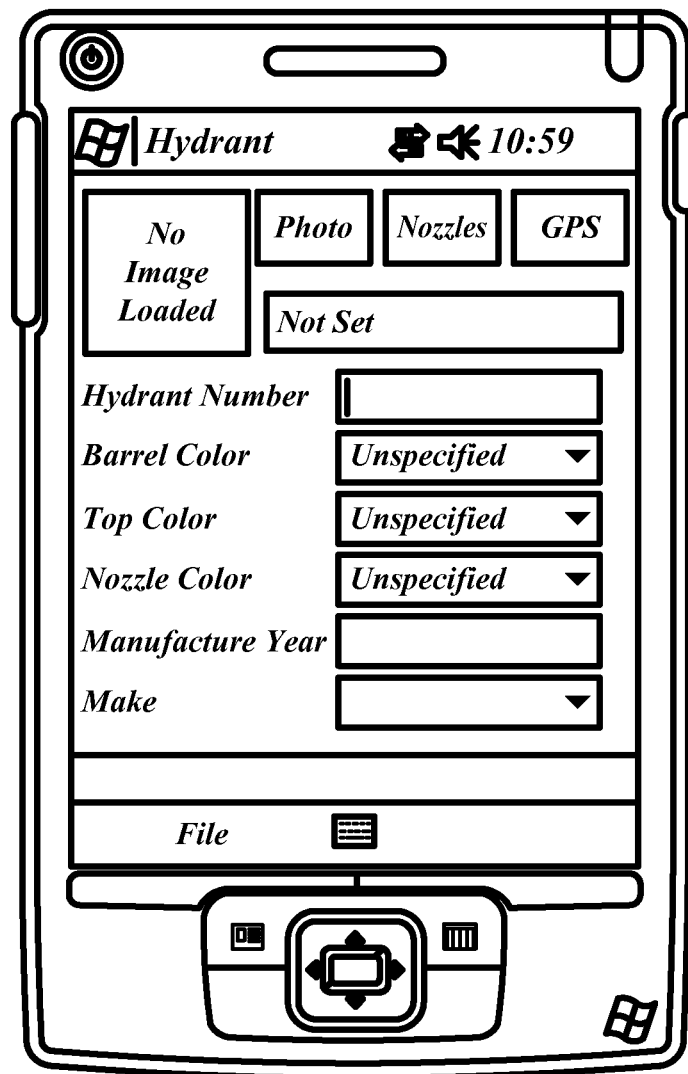


Fig. 20

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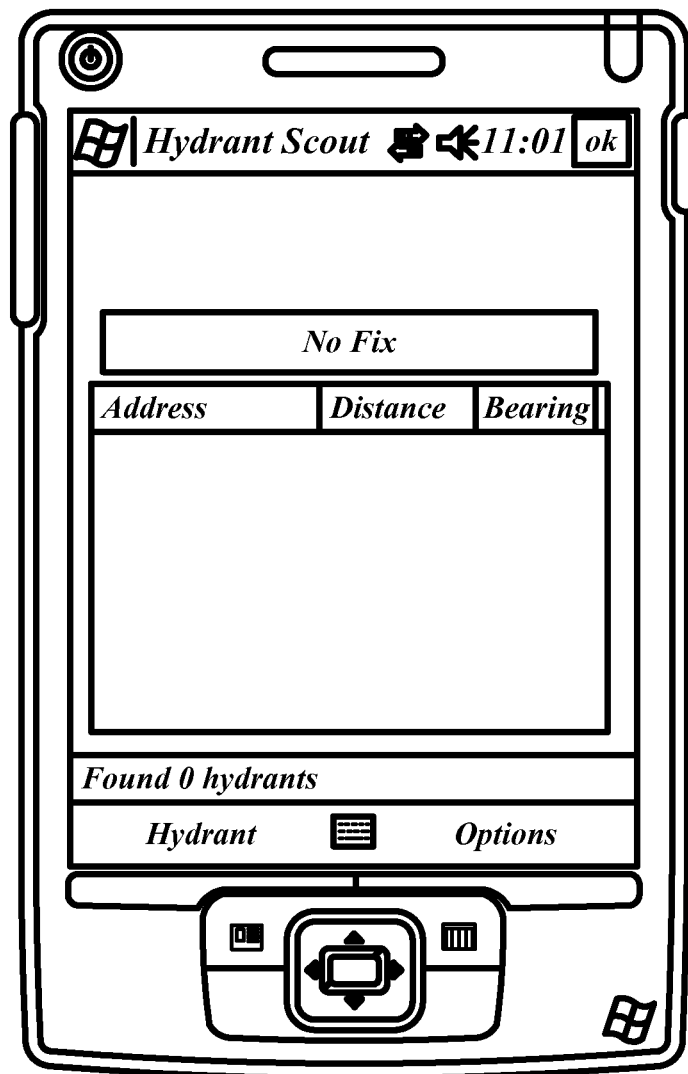


Fig. 21

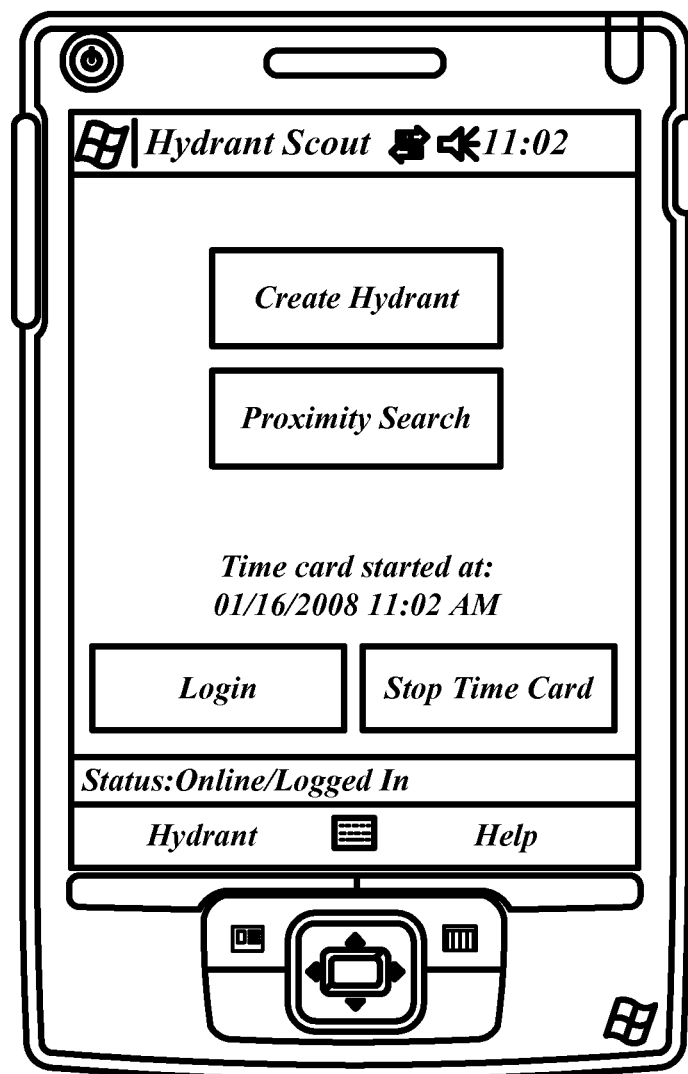


Fig. 22

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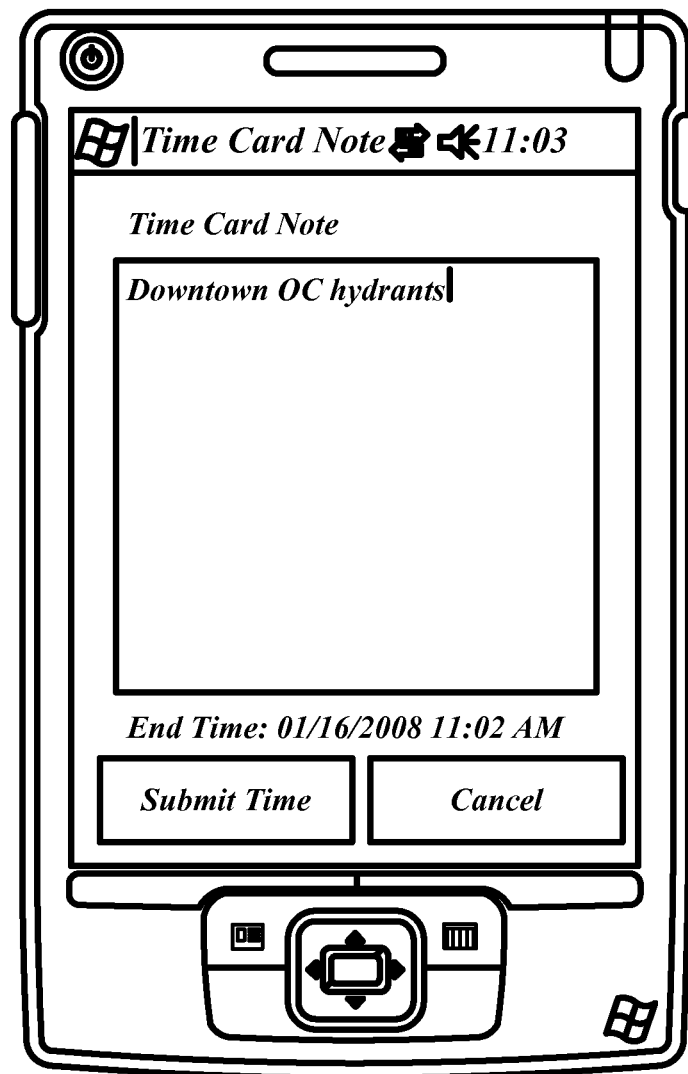


Fig. 23

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SYSTEMS AND METHODS FOR A WEB BASED INSPECTION COMPLIANCE REGISTRY AND COMMUNICATION TOOL

PRIORITY CLAIM

This application claims priority to and incorporates all of the following by reference in their entirety U.S. Patent Provisional Application Nos. 60/886,269 filed on Jan. 23, 2007, 60/977,870 filed on Oct. 5, 2007, 60/981,091 filed Oct. 18, 2007, and 60/981,784 filed on Oct. 22, 2007.

This application incorporates all of the following by reference in their entirety U.S. Patent Provisional Application Nos. 60/969,905 filed on Sep. 4, 2007, and 60/981,782 filed on Oct. 22, 2007.

BACKGROUND OF THE INVENTION

There are many assets that are owned around the world that require compliance with a code, local rule, state law, or federal law. Compliance in most of these cases requires a periodic inspection of the owned asset. An example of owned assets requiring annual or regular inspection are fire sprinkler systems, fire alarm systems, kitchen hood systems, fire extinguishers, emergency lighting systems, backflow preventers, bridges, fire hydrants, catch basins, retention ponds, electrical systems, heating/venting/air conditioning systems, plumbing systems, aircraft, vehicles, school transportation vehicles, cranes, powerplants, dams, stormwater runoff, animals, industrial sites, environmental interests, housing, real estate, boilers, farm equipment, viaducts, tunnels, businesses, financials, pharmaceutical caches, weapon caches, amusement parks/rides, elevators, escalators, pilings, piers, safety equipment, kitchens, and others. For purposes of a non limiting example a fire hydrant will be used as an owned asset throughout the specification, however it should be readily appreciated that any owned asset may be substituted for the fire hydrant.

In order to ensure that a fire hydrant is working and is capable to dispense water the hydrant is preferably inspected annually. The hydrant is usually inspected by a range of individuals including but not limited to a citizen, an owner, a water purveyor, a firefighter, and/or a fire marshal. An inspector will record information about the hydrants location and operability. The completed inspection may be recorded in local neighborhood records (privately owned hydrant), a firehouse or in a computer system stored locally in an inspectors office. Most of these inspections are not available globally and generally are not available at the time of a fire. If a hydrant is not inspected a fire crew could waste valuable time trying to find water for their hoses from a malfunctioning hydrant. A hydrant also could be leaking water or be otherwise unsafe, which may not be discovered without an inspection. In most areas very few hydrants are inspected because of the large number of hydrants, the lack of a working inspection enforcement and tracking system and because there is not currently a way to use the inspection information at the time of a fire near the hydrant.

Computer software has been used in the past as a way for inspecting authorities to track fire hydrant usage. These previous software approaches focus on collecting limited data on each fire hydrant and keeping the information local to the fire department or owner only. A typical fire hydrant management software program allows the user to input hydrant information, schedule maintenance, and create reminders for service. The local fire department can evaluate inputted data to determine water flow information and

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general location. These programs do not record data such as water quality, GPS location, or condition. Also they do not record requests for maintenance or improvements. None of previous approaches communicate with each other or communicate with a global registry. In fact, none of them communicate with other users who use the same program and therefore there is not a system that currently combines all of the gathered data for use by all fire departments. Commonly, because of high software costs and the lack of organization, departments do not use a formal hydrant management software program and instead rely on pencil, paper, calendars, and file cabinets.

A global registry currently does not exist for many owned asset areas and more specifically in the fire hydrant space resulting in a lack of global knowledge available when making widespread decisions regarding fire hydrants or a water system. The disadvantage of using current fire hydrant management software is the limitation of communication within the department and interdepartmentally. Commonly the person who inputs the data is not the one who uses the data, the software is limited to a specific computer, and the system of inputting and using data relies on the location and type of the specific computer. For example, the fire department personnel may inspect the fire hydrant and document required maintenance, but the hydrant maintenance crew (commonly water department personnel) does not have easy access to the software and cannot review or update required maintenance. Also, the maintenance crew does not have an easy way to communicate the status of a damaged hydrant to the fire marshal. There is not a software program that gives one department the ability to share their information with other departments either using the same software or using other software.

Currently there is not a standard format for collecting fire hydrant information. If there were a way to share a local database globally, the information would not likely integrate well using current software and inspection methods. Even if there were a way to integrate the different data types, third party groups like state fire marshals, insurance groups, and the general public would not have access to the data without the correct software. Therefore, the state fire marshal continues to be uninformed of the state's fire hydrant conditions, insurance groups have to give higher premiums because of their uncertainties, and the general public has less awareness of the water system and the crews that maintain it. The general public also has no communication with the fire department when trying to assess how they can volunteer their services in programs such as 'Adopt a hydrant' or 'Paint a hydrant'.

Further, current software fails to record all the available data upon an inspection. For instance, no currently available software allows input of results from a water quality test, a digital picture, GPS location, suggested maintenance, owner, or owner's address (as examples). Other approaches fail to generate reports summarizing an area's data such as manufacturer's reliability, flow availability, or departmental maintenance performance. Additionally, software programs are generally expensive and require their own maintenance. Adding licenses of the software to other computers can also be expensive. Many of the prior approaches fail to keep good fundamental records which affect the departments I.S.O. score and affects the local businesses and residence's fire insurance premiums.

Additionally, all previous approaches are tailored for input by a government agency such as a fire department or maintenance crew. This generally discourages the department from seeking independent (and unbiased) private com-

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panies to inspect and maintain fire hydrants. Allowing an accessible format to independent contractors would allow cheaper maintenance costs and saves the department and taxpayer's money.

SUMMARY OF THE INVENTION

A 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. Electronically transmitting a list of at least one qualified inspector to a user. Receiving a completed inspection uploaded from an inspector. Transmitting the completed inspection to an approving authority. Completing a monetary transaction between the asset owner and the inspector when the inspection is approved by the approving authority.

A system for a web based compliance registry including a database configured to store owned asset information. A user interface in data communication with the database configured to show owned asset information on a display. A handheld device configured to wirelessly connect to the user interface and with the database in order to input and view owned asset data wirelessly and specific information based on its global position.

BRIEF DESCRIPTION OF THE DRAWINGS

The preferred and alternative embodiments of the present invention are described in detail below with reference to the following drawings.

FIG. 1 illustrates an example of a computing system environment on which an embodiment of the invention may be implemented;

FIG. 2 illustrates an exemplary computer network system on which an embodiment of the present invention may be implemented;

FIG. 3 shows an example system showing a web based compliance registry in one embodiment;

FIG. 4 shows a database relationship table in one embodiment for a web based registry for inspection compliance;

FIG. 5 shows a method for using a web enabled inspection registry;

FIG. 6 shows a method of using the registry in one embodiment;

FIGS. 7-17 show example screenshots of one embodiment of the web registry for inspection compliance used for fire hydrants; and

FIGS. 18-23 shows screenshots of one embodiment of the web registry for inspection compliance used for fire hydrants and accessed from a mobile device.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

When trying to manage a registry of owned assets and more specifically fire hydrant inspections, there generally are multiple parties who are inputting data and using the data stored in the registry. There are a vast number of hydrants in a typical sized city and each preferably receives an annual inspection and some periodic maintenance. Without the inspections the fire hydrant may not be able to be properly used in case of an emergency. Further the hydrant may be leaking water or be otherwise unsafe. There are a number of groups that typically inspect hydrants and most do not communicate with each other. For example a private neighborhood association and the fire marshals do not communicate inspection results with each other. Once the inspection

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has been completed the information should be used by a firefighter when sent to a fire. In order to be a useful system, the firefighters should be able to see which, if any, of the hydrants in the area of the fire are available for use and properly functioning. Efficiently finding and activating a working hydrant in the area may be the difference in the survival of personnel and total destruction of the burning building.

Systems and methods for a web based registry compliance tool are described in further detail below. One embodiment of the invention comprises a series of steps to ensure that the inspection takes place and the inspection results are placed online in the web based registry. The series of steps advantageously take an owner of an asset from a notification that an inspection is needed, through bidding for an inspector, inspection, approval and payment and finally posting of the inspection in the registry. The registry further stores location information in order to allow a user with a global positioning system and access to the web based registry to review the status of all of the hydrants in the general area.

By way of an example in the fire sprinkler industry, national code requires annual inspections of fire sprinkler systems and related components (such as standpipes, fire department connections, fire pumps). In one embodiment, the fire marshal/building official will input information via the online registry regarding properties with fire sprinkler systems after initial inspection. A year later, the property owner will receive notice (via email, physical mail, or other) that the fire sprinkler system is due for annual inspection. The fire marshal will receive weekly or monthly updates of all due and overdue inspections. He/she will then use the registry to communicate to the owner his intention to enforce the inspection and the requirement for using the registry. The owner will use the registry to find qualified inspection companies and/or request bids from participating inspection companies. The registry will manage the bidding process and return the results to the owner for selection. The inspection company will use the registry to advertise their service and receive requests for bids and/or work. They will also use the registry (via the web or mobile device) to input their inspections with or without deficiency information which the registry sends to the fire marshal for review per the fire marshal's declared preferences. Depending on his preferences, he/she can review the inspection, verify city business license status of the inspection company, verify inspector qualifications, and approve, disapprove, or just confirm the inspection. He/she can also separately detail a course of action to an owner regarding any found deficiencies. The registry communicates the approval process between all parties until approval or confirmation is received. At that time the owner is notified the inspection is complete and approved and awaiting payment. The registry prepares an invoice for the inspection company to send to the fire sprinkler system owner. The owner receives the invoice and is able to pay online through the registry. Money is transferred to the inspection company, to the city (for any declared city/FM charges), and to any other necessary parties. The registry sends a message to the inspection company to confirm payment has been received. The inspection company verifies payment. The registry confirms that all transaction fees and fire marshal review fees are paid. If fees are not paid then the final submission will not be complete. The inspection is sent to the registry for final submission when payment is confirmed and the registry transaction fees and fire marshal review fees are paid. Until then the registry continues to notify the fire marshal that the inspection is due/incomplete.

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FIG. 1 illustrates an example of a computing system environment **100** on which an embodiment of the invention may be implemented. The computing system environment **100**, as illustrated, is an example of a suitable computing environment; however it is appreciated that other environments, systems, and devices may be used to implement various embodiments of the invention as described in more detail below.

Embodiments of the invention are operational with numerous other general-purpose or special purpose computing system environments or configurations. Examples of well-known computing systems, environments, and/or configurations that may be suitable for use with embodiments of the invention include, but are not limited to, personal computers, server computers, hand-held or laptop devices, multiprocessor systems, microprocessor-based systems, set-top boxes, programmable consumer electronics, network PCs, minicomputers, mainframe computers, distributed computing environments that include any of the above systems or devices, and the like.

Embodiments of the invention may be described in the general context of computer-executable instructions, such as program modules, being executed by a computer. Generally, program modules include routines, programs, objects, components, data structures, etc. that perform particular tasks or implement particular abstract data types. Embodiments of the invention may also be practiced in distributed-computing environments where tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules may be located in both local and remote computer storage media including memory storage devices.

With reference to FIG. 1, an exemplary system for implementing an embodiment of the invention includes a computing device, such as computing device **100**. The computing device **100** typically includes at least one processing unit **102** and memory **104**.

Depending on the exact configuration and type of computing device, memory **104** may be volatile (such as random-access memory (RAM)), nonvolatile (such as read-only memory (ROM), flash memory, etc.) or some combination of the two. This most basic configuration is illustrated in FIG. 1 by dashed line **106**.

Additionally, the device **100** may have additional features, aspects, and functionality. For example, the device **100** may include additional storage (removable and/or non-removable) which may take the form of, but is not limited to, magnetic or optical disks or tapes. Such additional storage is illustrated in FIG. 1 by removable storage **108** and non-removable storage **110**. Computer storage media includes volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Memory **104**, removable storage **108** and non-removable storage **110** are all examples of computer storage media. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital versatile disks (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by device **100**. Any such computer storage media may be part of device **100**.

The device **100** may also contain a communications connection **112** that allows the device to communicate with other devices. The Communications connection **112** is an

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example of communication media. Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any information delivery media. The term “modulated data signal” means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, the communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, radio-frequency (RF), infrared and other wireless media. The term computer-readable media as used herein includes both storage media and communication media.

The device **100** may also have an input device **114** such as keyboard, mouse, pen, voice-input device, touch-input device, etc. Further, an output device **116** such as a display, speakers, printer, etc. may also be included. Additional input devices **114** and output devices **116** may be included depending on a desired functionality of the device **100**.

Referring now to FIG. 2, an embodiment of the present invention takes the form of an exemplary computer network system **200**. The system **200** includes an 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**. The server **230** may further be coupled, or otherwise have access, to a database **240** and a computer system **260**. Although the embodiment illustrated in FIG. 2 includes one server **230** coupled to one client device **210** via the network **220**, it should be recognized that embodiments of the invention may be implemented using one or more such client devices coupled to one or more such servers.

The client device **210** and the server **230** may include all or fewer than all of the features associated with the device **100** illustrated in and discussed with reference to FIG. 1. The client device **210** includes or is otherwise coupled to a computer screen or display **250**. The client device **210** may be used for various purposes such as network- and local-computing processes.

The client device **210** is linked via the network **220** to server **230** so that computer programs, such as, for example, a browser, running on the client device **210** can cooperate in two-way communication with server **230**. The server **230** may be coupled to database **240** to retrieve information therefrom and to store information thereto. Database **240** may include a plurality of different tables (not shown) that can be used by the server **230** to enable performance of various aspects of embodiments of the invention. Additionally, the server **230** may be coupled to the computer system **260** in a manner allowing the server to delegate certain processing functions to the computer system.

Still referring to FIG. 2, and in 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 to access web content served by the server **230**.

Still referring to FIG. 2, and in operation according to an alternate embodiment of the invention, a user (not shown) of the client device **210** desiring to use a inspection web registry on a browser application running on the client device to access web content, which may, but need not, be served by the server **230**. Specifically, by employing an appropriate uniform resource locator (URL) in a known manner, the user may run or download from the server **230** and install on the client device **210** a user interface module **280** comprising computer-executable instructions as

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described more fully hereinafter. Alternatively, the user may receive the module **280** on a tangible computer-readable medium (not shown), such as, for example, a CD-ROM, and subsequently install the module on the client device **210** from the medium.

FIG. **3** shows an example system showing a web based compliance registry in one embodiment. The system includes a client device **370** connected to the internet **320** through a network or other internet connection. Once connected to the internet **320**, the client device **370** accesses a web based compliance registry configured to show information on inspection compliance for an owned asset. In one embodiment, the owned asset is a fire hydrant inspection database. The web based compliance registry is shown to the user using a web interface. The web interface is linked to at least one database **380** containing web based compliance registry information. In one embodiment, the web enabled interface is connected to both a proprietary mobility server **310** and a global registry of hydrants database **380** in order to exchange information related to fire hydrants **360**. Hydrant information is stored in the database **380** and using a search program allows users to manipulate or view hydrant data.

In one embodiment a handheld device **340** referred to as a scout device is included. The handheld device **340** is a handheld computing device, or system of a type known in the art, such as a handheld computer, wireless mobile telephone, personal digital assistant device, and the like. Handheld device **340** may comprise one of many well known handheld devices including, but not limited to a Palm Treo, a Blackberry or other handheld devices. Handheld device **340** comprises such software, hardware, and components as would occur to one of skill in the art, such as, for example, one or more microprocessors, memory systems, input/output devices, device controllers, wireless connectivity and the like. Handheld device **340** also comprises one or more data entry systems operable by a user of handheld device, such as, for example, a pointing device, keyboard, touch screen, microphone, voice recognition, and/or other data entry systems known in the art. Handheld device **340** further comprises a display system which may comprise many of the well known display devices such as liquid crystal diode displays, light emitting diode displays, etc., upon which information may be displayed in a manner perceptible to the user. Handheld device **340** may also comprise a data receiving system including, but not limited to a bar code reader, digital camera, GPS coordinates, Bluetooth, wireless connectivity, cellular connectivity, radio frequency identification software or an iris or fingerprint recognition system. The handheld device **340** having software to communicate with the web enabled interface wirelessly in order to update the hydrant registry. The handheld device **340** configured to update information about assets (including, but not limited to, a current location). The handheld device **340** further includes the following list of non exhaustive list of features: data is both manually and automatically inserted into the computer; coordinates from the GPS unit can be manually or automatically downloaded into the computer; pictures from the camera are automatically downloaded to the computer; the communication connection between the computer, the GPS unit, and the camera may be hardwired or wireless (such as Bluetooth) and/or a data entry program then utilizes the phone to upload (and download) data to the web based compliance registry.

In an alternate embodiment the system further includes the use of RFID chips to update information about assets (including, but not limited to, a current location). For

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example a hydrant would have an RFID chip and would transmit inspection data to a handheld device when the handheld device was within range.

FIG. **4** shows a database relationship table in one embodiment for a web based registry for inspection compliance. Shown is a database configured to store information including but not limited to; hydrant ownership, make, model, year, color, condition, rating of needed maintenance (critical, important, light, or none), specific recommended maintenance, pressure, flow, GPS location, address, time of inspection, environment conditions during inspection, landscaping, digital picture of hydrant, nozzle size and orientation, physical description of hydrant, special markings, service record, water quality, and hydrant number.

FIG. **5** shows a method for using a web enabled inspection registry. At block **510** an owner/inspecting authority is notified that an inspection is needed on an owned asset. The notification is preferably generated based on an annual inspection. However in the case of an initial setup of the registry it also may be the initial request for information from an inspecting authority or it may include a request for further information from a concerned citizen. By way of example, the registry transmits notification to initially register with the registry and to perform an inspection and in the future notifies an owner when a subsequent inspection is necessary. Preferably the owner is sent recommendations on how the property is to be inspected, for example recommendations include names of inspectors, types of inspection needed and general costs associated with the inspection. The notification step is also used to alert the inspecting authority that an inspection is due. The inspecting authority is generally the organization in charge of ensuring compliance of the owned asset. For example a fire marshal is the inspecting authority for fire sprinkler systems. Generally, the inspecting authority receives information relating to all of the owned assets in their area of responsibility that are in need of an inspection.

At block **520** inspection preparation is done by both an owner of an asset and by an inspector. Once an owner receives notification he/she begins the inspection process by reviewing a list of inspectors and requesting bids for the job. The owner may select their own inspector or may use the web based compliance registry to find a qualified inspector or inspectors. In the registry a list of inspectors is available that includes licensed and bonded inspectors. Once a user has selected inspectors a bidding process is initiated in order to provide users with a list of prices for an inspection. The selection and bidding process is enabled using the web based registry interface. Through the user interface to the web based compliance registry a user is able to review the inspector and his/her credentials, review a bid for the inspection and finally select and schedule an inspection with one of the listed inspectors.

At block **530** an inspection takes place. The chosen inspector inspects the owned asset based on standard industry inspection rules and regulations. In order to perform the inspection, the inspector either carries with him/her an inspection sheet that includes an area to enter in all information required by an embodiment of the web based inspection registry or uses a handheld device to perform the inspection. Generally, if an inspector uses the pen and paper means for an inspection the inspector or the asset owner will update the registry manually using the data recorded on site. In another embodiment the inspector uses a web enabled handheld device configured to interface wirelessly with the internet or directly with the registry database. The inspector uses the device to enter in the inspection information and

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advantageously can print or transmit the inspection to a reviewing authority from the web based compliance registry.

At block 540, the inspection, after being loaded into the registry, goes through a review period. The review is conducted by the approving authority and is done to ensure the inspection is completed in compliance within the rules and regulations of the inspection. This allows the approving authority the ability to quickly review each inspection and provide feedback to the inspector at the earliest convenience. Once the reviewing authority has approved the inspection. The registry sends an invoice to the asset owner in order to arrange for payment. The registry allows for the owner to pay online and then sends payment to the inspector therefore completing the transaction. By way of an example once an inspection is complete previously submitted credit card information is billed for the inspection which preferably includes the inspector's fee, the fees for filing an inspection with the approving authority and registry fees. Deficiencies noted then the authority is able to contact owner and provides coa's

At block 550, the inspection is complete and the information is updated on the system to reflect a completed and valid inspection. Once updated the information is advantageously viewable by all interested parties.

FIG. 6 shows a method of using the registry in one embodiment. A user may carry a wireless handheld device to input data as discussed above, but also the handheld device may be used to display inspection status and details of the assets in the user's proximity. At block 610, the unit receives a global positioning system location and with that information at block 620 displays the assets in proximity to the user. The user may use this display to inspect the assets or send reminders to the owners that there asset still needs to be inspected and view asset details. In one embodiment the handheld device may be used by firefighters as they are responding to jobs to see the most recently inspected and approved hydrants and hydrant details in there vicinity.

FIGS. 7-17 show example screenshots of one embodiment of the web registry for inspection compliance used for fire hydrants. FIG. 7 shows a login screen in one embodiment. The user will have preferences and permissions based on whether they are an owner, inspector or an authority. FIG. 8 shows a create hydrant screen which allows a user to add information about a hydrant. FIG. 9 shows a hydrant search screen which allows a user to see the results of a typical hydrant search along with identification information about the hydrants. Included in the results screen are pictures of the hydrants if available as well as other identification information such as address and type. FIG. 10 shows a hydrant search using a map. On this screen a user uses an interactive map to find a location. Once the location is selected a graphical representation of the hydrants in the area is shown to the user. FIG. 11 shows a view of the hydrant details accessible from the hydrant search page shown in FIGS. 9 and 10. FIG. 12 shows a graphical representation of hydrants in an area on a map as selected by a user. FIG. 13 shows a screen that allows a user to customize the screen views of the program described in one embodiment. FIG. 14 shows a user management screen in which an administrator can set users and change permissions of those users. FIGS. 15-17 show time card entry screens in which a user or an inspector records time spent on inspecting a hydrant for a future payment in one embodiment.

FIGS. 18-23 shows screenshots of one embodiment of the web registry for inspection compliance used for fire hydrants and accessed from a mobile device. FIG. 18 shows a login screen used on a mobile device. FIG. 19 shows the home

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screen for the handheld device, allowing a user to create a hydrant, search for hydrants in proximity to the handheld device, login/logout and start a time card. FIG. 20 shows a create hydrant screen which allows a user to add information about a hydrant. FIG. 21 shows a proximity search screen displaying information about hydrants in proximity to the device. FIG. 22 shows the home screen with the time for the time card started. FIG. 23 shows a screen allowing a user to enter notes about their time entrees on the handheld device.

The global registry is intended to assist the government, private owners, insurance bureaus, businesses, and the general public in providing information regarding hydrant condition, location, and water quality. The most important purpose is to prepare the fire department for the hydrant and water conditions prior to arriving at a fire incident. This preparation will improve the approach of extinguishing a fire by showing the best hydrant for the fire department to connect to and also give visual reference of that hydrant prior to arriving at the site. This improvement will allow a fire department to put more water on a fire quicker and save lives and property. Non-working or low performing hydrants will be identified prior to arriving at the site and avoided. Another major purpose of the registry is to assist maintenance crews in locating and preparing work on hydrants in need of service. Equally important, these needed and/or finished repairs are communicated back to the fire marshal and fire department. This vital communication will inform the fire fighters of hydrant conditions. The state fire marshals are able to review the performance of local fire marshals and maintenance crews. The improved method of record keeping hydrant information will improve a city's ISO (insurance) rating which will save money in fire insurance premiums for local businesses and homes. The web based compliance registry is optionally advantageous to improve the process of inspections and in many cases introduce a new ability to enforce inspections. The authorities will be able to easily monitor, require, enforce, review, approve, and summarize all the inspections under their control. This new method will provide an easier way for them to charge for their review time and a way to confirm inspection companies are licensed to work in their city. This will help the cities recuperate lost expenses previously overlooked or ignored.

Multiple embodiments may be advantageously used by the following non exhaustive list of users. Budgeting committees will use the registry to more accurately predict annual maintenance and repair costs. Private hydrant owners will register their hydrants in the global registry which will notify the owner when inspection and testing is required. Fire hydrant maintenance crews will use this registry to schedule and prepare necessary maintenance at specific fire hydrants. An inspection crew will use the registry to record all findings regarding a fire hydrant test and inspection. The fire department will use the registry when preparing for a fire by researching the hydrant condition, the GPS location, the GIS map, and the digital picture for a visual confirmation prior to arriving at the site. The local fire marshals will use the registry to verify progress of the maintenance crews. State fire marshals will use the registry to review the status of fire hydrants in a specified area (statewide, citywide, or other). Insurance companies and rating bureaus will use the registry to assist them in accurately grading a state, city, district, business, neighborhood, or house based on the conditions and location of hydrants. The Environmental Protection Agency (EPA) and the general public will use the registry to verify a state's or city's compliance with the Safe Water Drinking Act and general information about the water quality. City engineers and planning and development agen-

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cies will have multiple uses for the registry. Hydrant manufacturers would use the registry to determine the performance of their products and at the same time, relate it to competitor's products. Consumers will use the registry to determine more reliable products based on a specific make and models past performance. Installation, testing, inspection, service, repair, and material supply companies will register with the global registry which will allow them to receive orders or bid requests for their service or material. The general public will use the registry to verify the quality of public fire hydrants. Civil Engineers and Surveyors would use the fire hydrant GIS maps and GPS locations in the registry as survey points during planning and development. Financial officers will use the registry to determine current infrastructure assets for accrual accounting practices in accordance with GASB-34.

In alternate, yet related embodiment a Closed System Fire Hydrant Water Flow Test is disclosed as a means for inspecting fire hydrants while maximizing environmental protection. Specifically, it is the protection of the environment from water damage caused by flowing fire hydrants. The system further controls drainage during and after a fire hydrant flow test or flushing. Other fields affected by the system include, but are not limited to, water conservation, landscape protection, water main flushing, water quality testing, and hydrant maintenance and testing. Generally the following groups will advantageously benefit from this invention are private hydrant owners, general public, fire departments, water departments, water companies, hydrant testing and maintenance companies, and the Environmental Protection Agency (EPA). The close system fire hydrant water flow test system, in one embodiment, further includes a fire hydrant in-line electromagnetic flow meter.

Hydrant inspection and testing companies advantageously can improve the quality of their testing and obtain more consistent results. Companies and jurisdictions responsible for testing hydrants will be able to provide a safer test for the environment and immediate landscaping. This product will decrease the amount of flow time on a hydrant allowing the testing party to test more hydrants per day. A closed system test will allow testing parties to safely and quickly test hydrants located in high traffic areas such as downtown or on highways, which was previously impractical to do because the danger of expelling thousands of gallons of water over roads with high traffic. Some hydrants are located in areas with protected landscaping or environmentally protected areas. Testing parties will now be able to test these hydrants without impact to the environment. Testers will also be able to control drainage of water collected by these tests into areas that are capable of supporting the necessary water flow. Other applications include testing fire pumps, water pumps, water tanks, or any other water source. In addition, the product could be used to test other liquids. Other applications for the Closed System Fire Hydrant Water Flow Test advantageously applied when water reservoirs are low, such as during drought seasons; and the system may be further adapted for performing water quality testing, obtaining GPS surveying information, and conveying the GPS surveying information to data storage mediums, for example a personal computer database or PDA device, in the form of text, pictures, and GPS data. Application of testing and flushing fire hydrants to a tank will allow testing/flushing companies to preserve water, landscaping, and environment while servicing. Additional commercial applications include the rental or sale of such systems that would allow owners, private contractors, government agencies, etc to test fire hydrants. The system would preferably include a pipe or

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hose connected to a flow meter device connected by pipe or hose to a control valve connected by pipe or hose to a tank (such as a water tank truck, or tank trailer). The tank would be connected by pipe or hose to a drain valve in order to discharge the water into a safe area.

The Closed System preferably includes all, at least one or a plurality of the following non exclusive list of features: a water passage device such as hose or pipe connected to a water control valve and an in-line flow meter connected to a tank for collecting the water. The tank is further connected to a water control drain valve which may be connected to hose or pipe. The closed system further includes: a shut-off valve, a 'through' flow meter (such as an electromagnetic flow meter), and a tank (such as a water truck). The tank gauges and manages the amount of water so as to assure proper flow test results such as a tank level alarm, and/or an overflow outlet, and a drain valve.

In one embodiment a method for using a closed system include: connecting to a water source such as fire hydrant, closing the shut-off valve within the closed system, opening the fire hydrant gate valve allowing water to enter the closed system up to the closed shut-off valve, quickly opening the shut-off valve in the closed system, recording a reading from the electromagnetic flow meter, closing the shut-off valve in the closed system, closing the fire hydrant shut-off valve and removing the connection to the closed system.

While the preferred embodiment of the invention has been illustrated and described, as noted above, many changes can be made without departing from the spirit and scope of the invention. Accordingly, the scope of the invention is not limited by the disclosure of the preferred embodiment. Instead, the invention should be determined entirely by reference to the claims that follow.

The embodiment of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A computer-implemented method for using a fire hydrant management software system accessible via a web registry to track a requisite inspection of an owned asset comprising:

granting remote access, by a computer-based system, to the web-based registry, wherein the web registry is managed by 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;

retrieving, by a computer-based fire hydrant management software system, real time records of assets from a database, the database being remotely accessible and augmentable by each of the at least three classes of user;

analyzing the records of assets from the database to determine whether an asset requires inspection; automatically creating, according to computer-executable instructions of the fire hydrant management software, standard format inspection list, based upon the analysis of records of assets from the database, wherein the standard form inspection list includes each asset due for inspection and each asset within a designatable interval of being due for inspection;

for each asset on the inspection list, according to computer-enabled instructions of the fire hydrant management software, retrieving a list of qualified inspectors according to designatable attributes including proxim-

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ity to the asset, wherein an inspector, upon accessing the web registry, can review and update information, including location;

for each asset on the inspection list, generating a standard format notice notifying the approval authority of the status of the assets assigned to the approval authority, and wherein the approval authority, upon accessing the compliance registry, may update and review the status of the assets;

for each asset on the inspection list, generating, according to computer-executable instructions of the fire hydrant management software, a standard format notice notifying an owner of the asset of an impending deadline for the inspection such notice to include the list of qualified inspectors for the asset, a description of the type of inspection, and a cost associated with the type of inspection, and wherein the owner of the asset, upon accessing the web-based registry, may update and review the status of the assets assigned to the owner;

receiving, by a computer-based system, at a server through an internet portal, the server in communication with the web-based registry, information that one of the qualified inspectors supplies, the information garnered by performing the required inspection;

retrieving, by a computer-based fire hydrant management software system, a standard format report template configured to the asset, compiling a report based upon the information the inspector supplies;

transmitting, by a computer-based system, the completed inspection report, based on the report template and the information garnered by performing the inspection, to the approving authority;

transmitting, from the approving authority, by the web-based registry, a standard format notice to the owner of the asset, the notice to include a report of the received information and where the received information includes a noted deficiency;

automatically, according to computer-executable instructions of the fire hydrant software, augmenting at the database, the records relative to the asset to reflect the information the inspector supplies when the inspection is approved by the approving authority; and

after the inspection is approved by the approving authority, completing a monetary transaction between the asset owner and the inspector.

2. The method of claim 1 further comprising:

at a computer in network communication with the database, entering initial information about a non-included asset that requires periodic inspection to comply with a code.

3. The method of claim 1 further comprising:

for each asset on the inspection list, transmitting to each qualified inspector on the list of qualified inspectors relative to the asset information about the asset sufficient for the qualified inspectors to generate a bid to inspect the asset;

receiving bids for a contract to inspect the asset from at least one of the qualified inspectors relative to the asset;

transmitting the received bids of the asset;

receiving a selection of a bid from the owner of the asset from among the received bids; and

transmitting to the qualified inspector who submitted the received selection, an acceptance of the bid.

4. The method of claim 1, wherein the asset is a fire hydrant, and further wherein the report of the received information includes a water quality test and a course of

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action based upon the received information, the course of action to include remedy of the deficiency.

5. A computer-implemented method for using a web registry to track an asset owner's inspection compliance, the computer-implemented method comprising:

granting remote access to a compliance fire hydrant management software registry system hosted on a server and accessible through a web-portal 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;

at a database, in communication with the compliance fire hydrant management software registry system, including records of assets, compiling an inspection list to include those assets which, after expiration of a designatable interval, will require an inspection;

generating with respect to at least one asset, a list of the qualified inspectors that are available to inspect the asset based upon attributes including proximity to the asset;

generating with respect to at least one asset, a standard form notice notifying the approval authority of the status of the asset assigned to the approval authority, and wherein, the approval authority, upon accessing the compliance fire hydrant management software registry system, may update and review the status of the assets;

transmitting, by the fire hydrant management software in communication with the web registry, a standard form notification to an owner of the at least one asset on the inspection list, including the list of qualified inspectors a description of the type of inspection, and a cost associated with the type of inspection, indicating that the asset requires an inspection, and wherein the owner of the asset, upon accessing the compliance fire hydrant management software registry system, may update and review the status of the assets;

displaying, at the web portal associated with the compliance fire hydrant management software registry system, attributes of the at least one asset, to at least one of the qualified inspectors from the list of qualified inspectors relative to the asset, the attributes selected to enable the at least one of the qualified inspectors to formulate a bid for a contract to inspect the asset;

receiving at the web portal associated with the compliance fire hydrant management software registry system, a bid from the at least one inspector from a list of qualified inspectors;

displaying to the owner the bid from the at least one inspector for selection;

receiving, at the web portal associated with the compliance fire hydrant management software registry system, the selection of a bid from the owner, such selection to include a form of payment for the inspection;

notifying the at least one inspector of a standard format contract to inspect based upon the selected bid;

receiving, at the web portal associated with the compliance registry system, from the at least one inspector, according to an asset specific template provided by the compliance registry system, standard format inspection information indicating the status of the asset, wherein the received inspection information includes receiving information describing deficiencies in the asset job, the owner of an asset receiving bids from qualified inspectors based on the needs of the asset;

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after receiving the inspection information, notifying the approval authority of the inspection information; receiving approval from the approval authority; transmitting a standard format notification that an inspection was completed and approved by an approving authority; and releasing to the inspector the payment.

6. The method of claim 5 further comprising: populating the database with initial information about an asset that requires periodic inspection to comply with a code.

7. The method of claim 5, wherein the receiving inspection information, further comprises: collecting inspection information using a handheld device.

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:

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

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;

analyzing the records of assets from the database to identify notification events;

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;

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;

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 and each of the steps of the inspection;

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

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.

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.

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.

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.

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.

13. The method of claim 8, wherein the noting 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.

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.

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.

16. The method of claim 8, further comprising:

compiling compliance report including the noted deficiency.

* * * * *

EXHIBIT 2
EXEMPLARY INFRINGEMENT CLAIM CHART

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

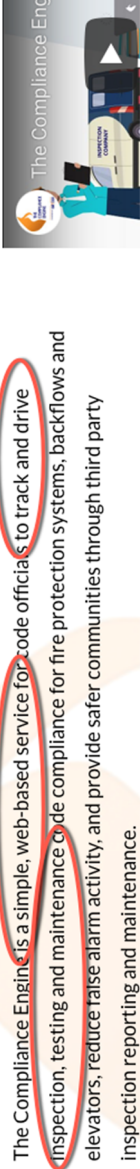
CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
8. A computer-implemented method for using a fire hydrant management software and a web-based registry to track inspection of an owned asset comprising:	Brycer's Compliance Engine is a computer-implemented method for using an asset management software and web-based registry to track inspection of an owned asset, e.g., fire hydrant, sprinkler system, etc. From Brycer's website, first page, under "Third Party Inspection reporting" (https://www.thecomplianceengine.com): <i>The Compliance Engine is a simple, web-based service for code officials to track and drive inspection, testing and maintenance code compliance for fire protection systems, backflows and elevators, reduce false alarm activity, and provide safer communities through third party inspection reporting and maintenance.</i> <i>TCE works for you: collecting, organizing and categorizing the third-party inspection reports. Track all your buildings critical safety systems, know who is compliant, who is deficient, and make more informed decisions that keep your staff, residents and visitors safe.</i> <i>TCE connects contractors—who inspect, test, and maintain fire protections systems, backflows and elevators—directly to the Authority Having Jurisdiction. Gain a proactive, efficient process to review reports, track deficiencies, notify parties, and ensure compliance.</i> BRYCERSERVICEWHAT IS TCE?CONTACT THIRD PARTY INSPECTION REPORTING 

EXHIBIT 2

U.S. Patent No. 11,126,966 Claim Chart

Brycer bid submission to City of Tumwater RFP Page 8, Paragraph 1:

TCE is a web-based application designed to drive electronic submission of relevant system inspection and maintenance reports to the City's prevention bureau, with a goal of facilitating cloud-based data aggregation, tracking and analytics.

Brycer's bid submission to City of Tumwater RFP Page 15, under Report Review:

Daily review of the Deficient and Compliant reports is available anytime, anywhere! TCE's Deficient and Compliant Icons will provide the City with a uniform electronic version of inspection, testing, and maintenance reports for all fire and life safety systems within the City.

Brycer's Website "Fire Explore" Section (<https://www.thecompliancesengine.com/fire/>):

See also video under Third Party Inspection reporting on their front page (<https://www.thecompliancesengine.com/>).

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
[a] 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:	Brycer's Compliance Engine grants remote access to a web-based registry system, which is configured to run a fire hydrant [owned asset] management software, to at least three classes of users, namely, the owner of an asset, an approval authority, and an inspector. Brycer bid submission to City of Tumwater RFP Page 8, Paragraph 1: "Our customers have found that the streamlined process of receiving, reviewing, and managing inspection report information drives code compliance." TCE website "What is TCE" Paragraph 2 (https://www.thecomplianceengine.com/what-is-tce/): It provides a secure cloud environment in which third-party contractors that inspect, test, and maintain fire protection systems backflows and elevators, submit their reports via BRYCER's web portal directly to the Authority Having Jurisdiction, facilitating a more efficient review, tracking, and follow-up process with occupants to correct deficiencies and maintain systems. See, e.g., video under Third Party Inspection reporting, "The Compliance Engine," also available at https://www.youtube.com/watch?v=o6tnvgEmEbg at 1:37-1:45: "The compliance engine optimizes the lines of communication between fire departments, inspection contractors, and local buildings."

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

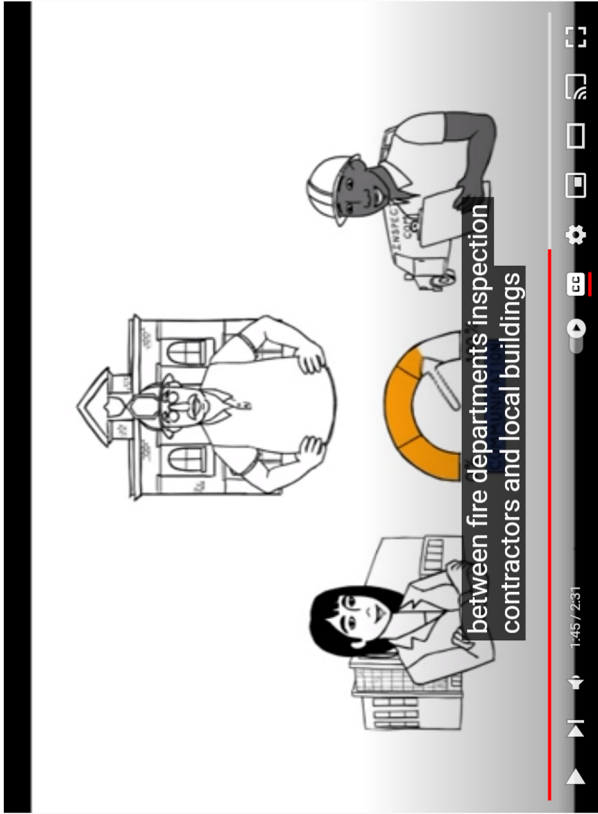
CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
	<i>See, e.g.,</i> screen shot at 1:45 of video showing communication of all three parties: 
(1) an owner of an asset	Brycer's Compliance Engine grants remote access to a web-based registry system, which is configured to run a fire hydrant [owned asset] management software, to at least three classes of users, namely, the owner of an asset, an approval authority, and an inspector. Brycer bid submission to City of Tumwater RFP Page 8, paragraph 4. "Continuous system premises profile updates afford the City the ability to view any building and review what systems they have, are they compliant, what violations are outstanding, what notifications have been sent, recordings of follow up calls, and a list of every inspection report for the life of the building."

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

<https://www.thecomplianceengine.com/what-is-tce/>:

It provides a secure cloud environment in which third-party contractors that inspect, test, and maintain fire protection systems backflows and elevators, submit their reports via BRYCER's web portal directly to the Authority Having Jurisdiction, facilitating a more efficient review, tracking, and follow-up process with occupants to correct deficiencies and maintain systems.

See also video under Third Party Inspection reporting on <https://www.thecomplianceengine.com>:

THIRD PARTY INSPECTION REPORTING

The Compliance Engine is a simple, web-based service for code officials to track and drive inspection, testing and maintenance code compliance for fire protection systems, backflows and elevators, reduce false alarm activity, and provide safer communities through third party inspection reporting and maintenance.

TCE works for you: collecting, organizing and categorizing the third-party inspection reports. Track all your buildings critical safety systems, know who is compliant, who is deficient, and make more informed decisions that keep your staff, residents and visitors safe.

TCE connects contractors—who inspect, test, and maintain fire protections systems, backflows and elevators—directly to the Authority Having Jurisdiction. Gain a proactive, efficient process to review reports, track deficiencies, notify parties, and ensure compliance.

Proactively drive your inspection, testing and maintenance compliance goals the free and simple way. Ask for a demo today.

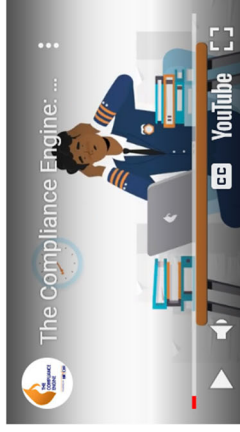


EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
	From Brycer's website to sign up:  See, e.g., video under Third Party Inspection reporting, "The Compliance Engine," also available at https://www.youtube.com/watch?v=o6tnvgEmEbg at 1:37-1:45: "The compliance engine optimizes the lines of communication between fire departments, inspection contractors, and local buildings."
(2) an approval authority	Brycer's Compliance Engine grants remote access to a web-based registry system, which is configured to run a fire hydrant [owned asset] management software, to at least three classes of users, namely, the owner of an asset, an approval authority, and an inspector. Brycer bid submission to City of Tumwater RFP Page 12, Bullet point "Contractor Participation Services": <i>We estimate there are 2000+ fire and life safety technicians performing testing in the City of Tumwater and State of Washington. Fundamental to our business model these folks will do a majority of the data entry keeping your database current, and just like our other AHJ partners enhance the level of detail of what buildings have what systems and are they compliant. As the certified inspection companies perform tests and upload inspection reports to The Compliance Engine, new buildings and unknown fire protection systems will be populated into the database for the City of Tumwater to begin tracking.</i>

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

TCE website “What is TCE” Paragraph 2 (<https://www.thecomplianceengine.com/what-is-tce/>):

It provides a secure cloud environment in which third-party contractors that inspect, test, and maintain fire protection systems backflows and elevators, submit their reports via BRYCER’s web portal directly to the Authority Having Jurisdiction, facilitating a more efficient review, tracking, and follow-up process with occupants to correct deficiencies and maintain systems.

* * *

With The Compliance Engine, Code Officials are better equipped to do more with less in their mission to drive 100% compliance with fire protection systems, backflows and elevators adopted inspection, testing and maintenance laws.

BRYCER

SERVICE ▾ WHAT IS TCE? CONTACT US ABOUT

AHJs Connection to Compliance

The **Compliance Engine** is a simple, Internet-based tool for Fire Prevention Bureaus, Water Departments, and Building Departments to track and drive inspection and testing code compliance, reduce false alarm activity, ensure clean drinking water and provide a safer community.

It provides a secure cloud environment in which third-party contractors that inspect, test, and maintain fire protection systems backflows and elevators, submit their reports via BRYCER’s web portal directly to the Authority Having Jurisdiction, facilitating a more efficient review, tracking, and follow-up process with occupants to correct deficiencies and maintain systems.

TCE website (<https://www.thecomplianceengine.com>) “Third Party Inspection Reporting,” 3rd paragraph:

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
	TCE connects contractors—who inspect, test, and maintain fire protections systems, backflows and elevators—directly to the Authority Having Jurisdiction. Gain a proactive, efficient process to review reports, track deficiencies, notify parties, and ensure compliance. TCE website (https://www.thecomplianceengine.com) “What is TCE,” paragraph 2: It provides a secure cloud environment in which third-party contractors that inspect, test, and maintain fire protection systems backflows and elevators, submit their reports via BRYCER's web portal directly to the Authority Having Jurisdiction, facilitating a more efficient review, tracking, and follow-up process with occupants to correct deficiencies and maintain systems. <i>See, e.g.,</i> video under Third Party Inspection reporting, “The Compliance Engine,” also available at https://www.youtube.com/watch?v=o6tnvgEmEbg at 1:37-1:45: “The compliance engine optimizes the lines of communication between fire departments, inspection contractors, and local buildings.”
(3) an inspector	Brycer's Compliance Engine grants remote access to a web-based registry system, which is configured to run a fire hydrant [owned asset] management software, to at least three classes of users, namely, the owner of an asset, an approval authority, and an inspector. Brycer bid submission to City of Tumwater RFP Page 8, Paragraph 3: “This information is pushed to the City by the inspection companies saving your resources the effort of performing data entry.” Brycer bid submission to City of Tumwater RFP Page 5, bullet point “ITM Service Providers”: “ITM Service Providers: The 541 ITM service providers already registered and submitting reports through TCE will afford the City immediate results.”

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
	Brycer bid submission to City of Tumwater RFP Page 12, Bullet point "Contractor Participation Services": <i>We estimate there are 2000+ fire and life safety technicians performing testing in the City of Tumwater and State of Washington. Fundamental to our business model these folks will do a majority of the data entry keeping your database current, and just like our other AHJ partners enhance the level of detail of what buildings have what systems and are they compliant. As the certified inspection companies perform tests and upload inspection reports to The Compliance Engine, new buildings and unknown fire protection systems will be populated into the database for the City of Tumwater to begin tracking.</i> TCE website (https://www.thecomplianceengine.com) "What is TCE," paragraph 2: It provides a secure cloud environment in which third-party contractors that inspect, test, and maintain fire protection systems backflows and elevators, submit their reports via BRYCER's web portal directly to the Authority Having Jurisdiction, facilitating a more efficient review, tracking, and follow-up process with occupants to correct deficiencies and maintain systems. TCE website (https://www.thecomplianceengine.com) "Third Party Inspection Reporting," 3rd paragraph: TCE connects contractors—who inspect, test, and maintain fire protections systems, backflows and elevators—directly to the Authority Having Jurisdiction. Gain a proactive, efficient process to review reports, track deficiencies, notify parties, and ensure compliance. See, e.g., video under Third Party Inspection reporting, "The Compliance Engine," also available at https://www.youtube.com/watch?v=o6tnvgEmEbg at 1:37-1:45: "The compliance engine optimizes the lines of communication between fire departments, inspection contractors, and local buildings."

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U.S. Patent No. 11,126,966 Claim Chart

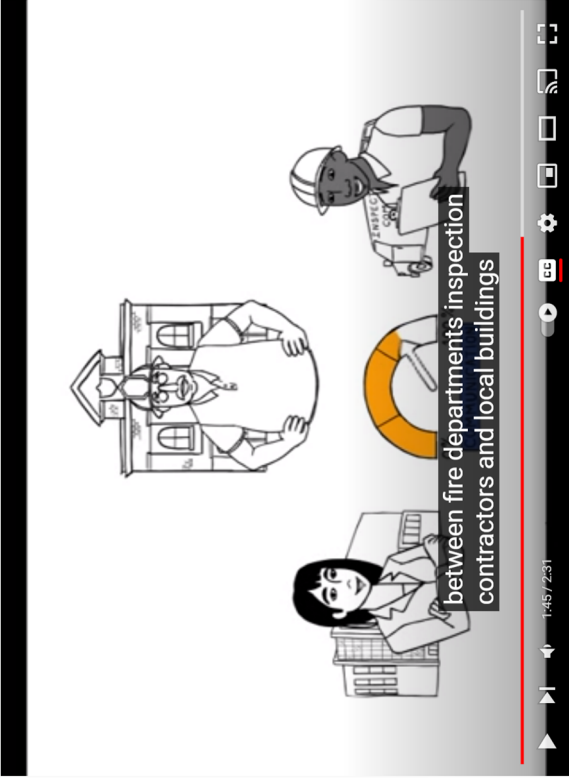
CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
	See, e.g., screen shot at 1:45 of video showing communication of all three parties: 
retrieving, by a computer-based fire hydrant management software system, real time records of assets from a database, the database being accessible and augmentable by a classes of user;	The Compliance Engine retrieves, through computer-based asset management software, real time records of assets from a database, the database being accessible and augmentable by users. Brycer bid submission to City of Tumwater RFP page 8, bullet point "Functions, Appearance and Ease of use": <i>All with a click, the City, will manage all fire protection systems inspection reports from one simple dashboard. This information is pushed to the City by the inspection companies saving your resources the effort of performing data entry.</i>

EXHIBIT 2

U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	THE COMPLIANCE ENGINE YOUR CONNECTION TO COMPLIANCE. Support 1-855-279-2371 Welcome, Dale! District Fire & Rescue HOME MY AHJ COMPANIES PREMISES FEEDBACK LOGOUT My AHJ Inspection Companies Premises Users Notifications Deficient Compliant Deficiency Tracking Analytics Logout Continuous system premises profile updates afford the City the ability to view any building and review what systems they have, are they compliant, what violations are outstanding, what notifications have been sent, recordings of follow up calls, and a list of every inspection report for the life of the building. TCE saves your inspector's time from having to ask for copies of reports to review onsite during their inspections, resulting in more boots on the street performing the City's inspections. All the information is at their fingertips. See, e.g., video under Third Party Inspection reporting, "The Compliance Engine," also available at https://www.youtube.com/watch?v=o6tnvgEmEbg.
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EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
[b] analyzing the records of assets from the database to identify notification events;	The Compliance Engine analyzes the records of assets from the database to identify notification events. Brycer bid submission to City of Tumwater RFP page 8, bullet point "Functions, Appearance and Ease of use": "Continuous system premises profile updates afford the City the ability to view any building and review what systems they have, are they compliant, what violations are outstanding, what notifications have been sent, recordings of follow up calls, and a list of every inspection report for the life of the building." TCE website "What is TCE" Paragraph 1 The Compliance Engine is a simple, Internet-based tool for Fire Prevention Bureaus, Water Departments, and Building Departments to track and drive inspection and testing code compliance, reduce false alarm activity, ensure clean drinking water and provide a safer community. See video under Third Party Inspection reporting at https://www.thecomplianceengine.com: <i>0:17-0:55 – What if this information was proactively organized and delivered to you in one easy to read format without requiring you or the contractor to invest in hardware or software? Become a user of The Compliance Engine at no cost and streamline this process online with The Compliance Engine. Now you have a solution that automatically identifies and sorts deficient and compliant test results in one secure location accessible anytime, anywhere. The Compliance Engine is more than just a software, it's a service. Our service sends renewal, overdue, and deficiency notices on behalf of the jurisdiction to your building owners.</i>
based on the analysis, notifying an owner of an asset of a notification event, wherein the notice includes a standard format description	The Compliance Engine notifies asset owners 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.

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	
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;	The following image from Brycer's Tumwater RFP response, page 18 shows a sample standard format notification to an owner of an asset due for inspection: YOUR DEPARTMENT NAME 1234 STREET ADDRESS CITYOF, XX 99999 MONTH DAY, YEAR BUILDING IN YOUR CITY 1234 MAIN RD YOUR CITY, IL 60540  System Type - Contractor of Record: SYSTEM TESTING COMPANY (555) 555-5555 THEIREMAIL @COMPANY.COM Re: SYSTEM TYPE INSPECTION RENEWAL - 1234 MAIN RD, YOUR CITY, STATE ZIPCODE Dear Building Occupant/Owner: In accordance with the (YOUR CODE), our records indicate the SYSTEM TYPE is coming due for inspection by a licensed company and must be tested within the month of your renewal date which is 01/21/20. It is the responsibility and requirement of the inspection company testing your system to submit all test reports to us via the web at www.thecomplianceengine.com. If you have questions regarding this notification, please contact our Compliance Program Partner BRYCER LLC at 630-413-9511 or via email at tce@mybrycer.com Sincerely Yours in Life & Fire Safety, DIGITAL SIGNATURE YOUR NAME YOUR TITLE YOUR DEPARTMENT NAME

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")																																																											
	The following image from Brycer's Tumwater RFP response, page 25 shows a sample notice of costs associated with each type of inspection.																																																											
	<table><tr><th>System Type</th><th>Submittal Option</th><th>Price</th><th>Billing Frequency</th></tr><tr><td>5-Year Obstruction Sprinkler</td><td>Annual</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Commercial Kitchen Exhaust Cleaning</td><td>Annual, Semi-Annual, Quarterly, Monthly</td><td>\$15.00</td><td>Per Submittal</td></tr><tr><td>Emergency Power Generator</td><td>Annual</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Fire Alarm</td><td>Annual, Semi-Annual, Quarterly, Monthly</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Fire Escape</td><td>Annual, 5-Year</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Fire Pump</td><td>Annual, Quarterly, Monthly, Weekly</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Hood Suppression System</td><td>Semi-Annual</td><td>\$15.00</td><td>Per Submittal</td></tr><tr><td>Paint/Spray Booth Suppression</td><td>Annual, Semi-Annual</td><td>\$15.00</td><td>Per Submittal</td></tr><tr><td>Private Fire Hydrant</td><td>Annual</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Smoke Control System</td><td>Annual</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Special Suppression</td><td>Annual, Semi-Annual</td><td>\$15.00</td><td>Per Submittal</td></tr><tr><td>Sprinkler System</td><td>Annual, Quarterly, Monthly</td><td>\$15.00</td><td>Annual</td></tr><tr><td>Standpipe</td><td>Annual, 5-Year</td><td>\$15.00</td><td>Annual</td></tr></table> ***Reports Submitted after 31 days of inspection date will be charged an additional \$5.00*** Revised November 2, 2020				System Type	Submittal Option	Price	Billing Frequency	5-Year Obstruction Sprinkler	Annual	\$15.00	Annual	Commercial Kitchen Exhaust Cleaning	Annual, Semi-Annual, Quarterly, Monthly	\$15.00	Per Submittal	Emergency Power Generator	Annual	\$15.00	Annual	Fire Alarm	Annual, Semi-Annual, Quarterly, Monthly	\$15.00	Annual	Fire Escape	Annual, 5-Year	\$15.00	Annual	Fire Pump	Annual, Quarterly, Monthly, Weekly	\$15.00	Annual	Hood Suppression System	Semi-Annual	\$15.00	Per Submittal	Paint/Spray Booth Suppression	Annual, Semi-Annual	\$15.00	Per Submittal	Private Fire Hydrant	Annual	\$15.00	Annual	Smoke Control System	Annual	\$15.00	Annual	Special Suppression	Annual, Semi-Annual	\$15.00	Per Submittal	Sprinkler System	Annual, Quarterly, Monthly	\$15.00	Annual	Standpipe	Annual, 5-Year	\$15.00	Annual
System Type	Submittal Option	Price	Billing Frequency																																																									
5-Year Obstruction Sprinkler	Annual	\$15.00	Annual																																																									
Commercial Kitchen Exhaust Cleaning	Annual, Semi-Annual, Quarterly, Monthly	\$15.00	Per Submittal																																																									
Emergency Power Generator	Annual	\$15.00	Annual																																																									
Fire Alarm	Annual, Semi-Annual, Quarterly, Monthly	\$15.00	Annual																																																									
Fire Escape	Annual, 5-Year	\$15.00	Annual																																																									
Fire Pump	Annual, Quarterly, Monthly, Weekly	\$15.00	Annual																																																									
Hood Suppression System	Semi-Annual	\$15.00	Per Submittal																																																									
Paint/Spray Booth Suppression	Annual, Semi-Annual	\$15.00	Per Submittal																																																									
Private Fire Hydrant	Annual	\$15.00	Annual																																																									
Smoke Control System	Annual	\$15.00	Annual																																																									
Special Suppression	Annual, Semi-Annual	\$15.00	Per Submittal																																																									
Sprinkler System	Annual, Quarterly, Monthly	\$15.00	Annual																																																									
Standpipe	Annual, 5-Year	\$15.00	Annual																																																									

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine") <i>All with a click, the City, will manage all fire protection systems inspection reports from one simple dashboard. This information is pushed to the City by the inspection companies saving your resources the effort of performing data entry.</i>  <i>Continuous system premises profile updates afford the City the ability to view any building and review what systems they have, are they compliant, what violations are outstanding, what notifications have been sent, recordings of follow up calls, and a list of every inspection report for the life of the building. TCE saves your inspector's time from having to ask for copies of reports to review onsite during their inspections, resulting in more boots on the street performing the City's inspections. All the information is at their fingertips.</i>
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EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	
[c] 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;	Based upon the analysis, The Compliance Engine sends 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. The following image from Brycer's Tumwater RFP response, page 16 shows a standard format notice to the approval authority of the status of the asset assigned to them.  The screenshot shows an email from 'The Compliance Engine' (mailto:DoNotReply@thecomplianceengine.com) sent on Monday, April 28, 2014, at 4:00 PM to firemarshal@winfd.com. The subject is 'Impairments Reported for AMC Movie Theatre'. The email body includes a logo for 'THE COMPLIANCE ENGINE' (a yellow fire hydrant with a flame) and a header 'Impairments Reported'. The main text is addressed to 'Dear Winfield Fire Department:' and states: 'Please be advised that a new inspection report has been made available for your review for the following premise. This inspection report has one or more impairments reported.' The details listed are: Premise: AMC Movie Theatre; Address: 154 S PIONEER, Winfield, WI 54935; Inspection Report: 21408; System: Automatic Fire Sprinkler System; Impairment: WATER SHUT OFF, FIRE SPRINKLER TAMPER SWITCHES NOT CONNECTED TO ALARM SYSTEM. The footer identifies the 'Inspection Company' as Simple Fire Services, with a phone number (630) 413-9511, and includes a link to access the report and a sign-off from Brycer Customer Service.

EXHIBIT 2

U.S. Patent No. 11,126,966 Claim Chart

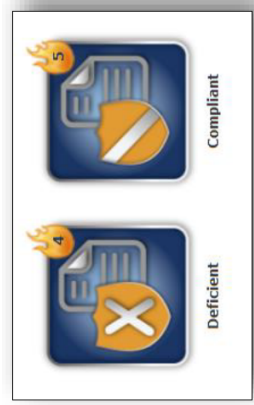
CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine") From TCE webpage under Fire https://www.thecomplianceengine.com/fire/:  Our proprietary processes and technology are proven to increase the number of fire protection systems being tested and repaired by as much as 72% in jurisdictions utilizing The Compliance Engine.   KNOW WHERE YOU STAND, AND HOW YOU CAN IMPROVE With powerful analytics, You will finally know what fire protection systems are installed at your buildings, which will work when called upon and those that haven't been tested or are in need of repair. The The following image from Brycer's Tumwater RFP response, page 15, shows numerated icons on the AHJs user account with the status of assets waiting their review. 
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EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT		BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
		The Tumwater RFP response, page 15 shows that the AHJ can update and review the status of the asset assigned. Report Review: Daily review of the Deficient and Compliant reports is available anytime, anywhere! TCE's Deficient and Compliant Icons will provide the City with a uniform electronic version of inspection, testing, and maintenance reports for all fire and life safety systems within the City.
[d] 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 each of the steps of the inspection.		The Compliance Engine, 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 each of the steps of the inspection. The following image is from the Tumwater RFP response, page 19 and details the use of a web-based template for an inspection report: Report Submission: TCE will accept submission of compliant and non-compliant reports on an annual, semi-annual, quarterly, monthly, weekly, and daily basis based on adopted fire code requirements. ITM service providers will be able to submit Standardized Forms that may be required by the Department, or use their own forms that they would attach as a PDF copy. Features and functionality of TCE for the City of Tumwater to improve the identification of non-compliance fire protection systems and find potential areas of risk include, but are not limited to: The following image from the The Compliance Engine website shows an inspector's web-based template for inputting an inspection report:

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

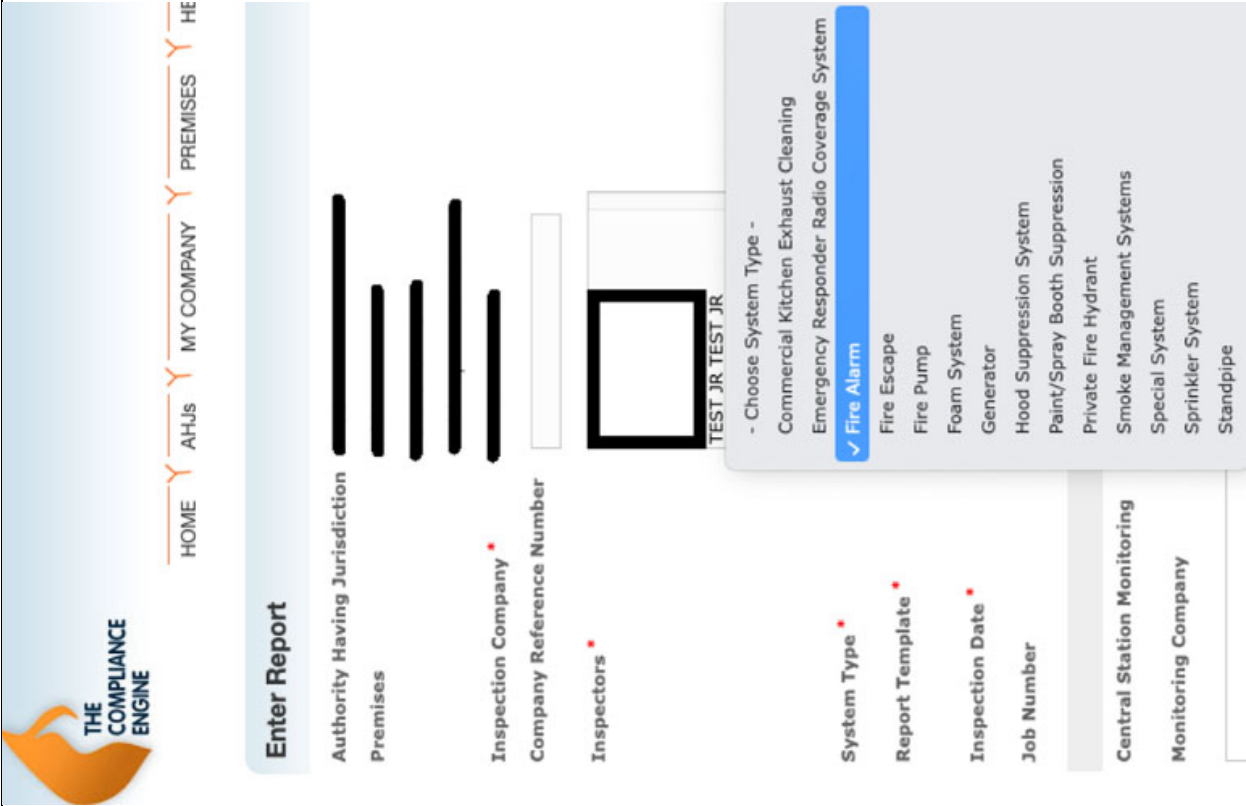
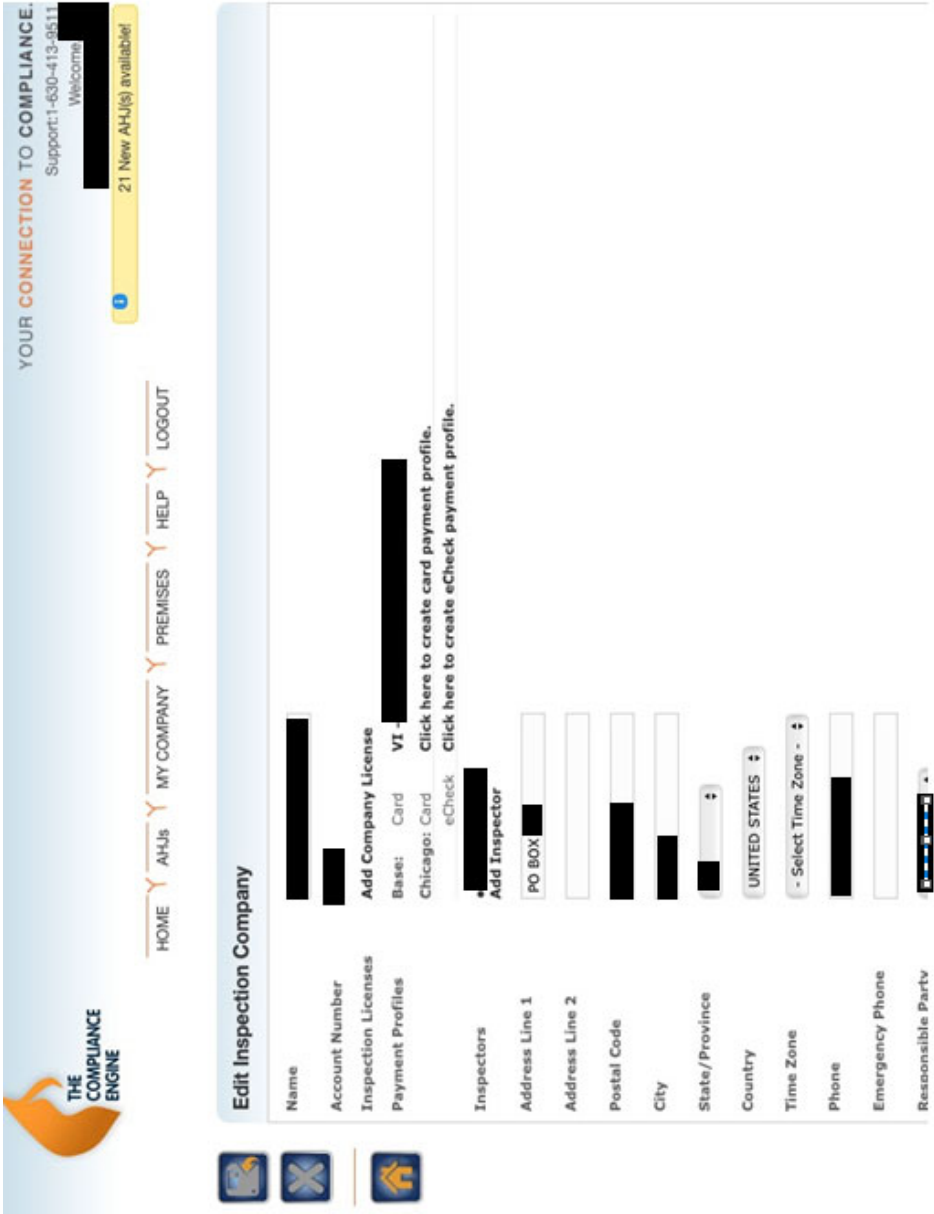
an each of the steps of the inspection;	 The screenshot displays the 'THE COMPLIANCE ENGINE' web application interface. At the top, there is a navigation bar with links: HOME, AHJs, MY COMPANY, PREMISES, and HE. Below the navigation bar is the 'Enter Report' section. This section contains several input fields: 'Authority Having Jurisdiction', 'Premises', 'Inspection Company', 'Company Reference Number', and 'Inspectors'. A dropdown menu for 'System Type' is open, showing a list of system types including 'Fire Alarm', 'Fire Escape', 'Fire Pump', 'Foam System', 'Generator', 'Hood Suppression System', 'Paint/Spray Booth Suppression', 'Private Fire Hydrant', 'Smoke Management Systems', 'Special System', 'Sprinkler System', and 'Standpipe'. The 'Fire Alarm' option is selected and highlighted in blue. Below the dropdown menu, there are fields for 'Report Template', 'Inspection Date', 'Job Number', 'Central Station Monitoring', and 'Monitoring Company'.
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EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine") The following 2-part image from The Compliance Engine website shows how the inspector updates his account to include specific jurisdictions in their service area for mapping proximity to assets:  The screenshot displays the 'Edit Inspection Company' page. The top navigation bar includes links for HOME, AHJs, MY COMPANY, PREMISES, HELP, and LOGOUT. A sidebar on the left contains icons for a mail envelope, a document with an 'X', and a house. The main content area is titled 'Edit Inspection Company' and includes the following fields: Name, Account Number, Inspection Licenses, Payment Profiles, Inspectors, Address Line 1, Address Line 2, Postal Code, City, State/Province, Country, Time Zone, Phone, Emergency Phone, and Responsible Party. The 'Add Company License' section shows a dropdown for 'Base' set to 'Card' and a dropdown for 'Chicago' set to 'Card'. A link 'Click here to create card payment profile.' is visible. The 'Add Inspector' section shows a dropdown for 'Add Inspector' set to 'Add Inspector'. The 'Address Line 1' field is set to 'PO BOX'. The 'Postal Code' field is set to '00000'. The 'City' field is set to 'San Juan'. The 'State/Province' field is set to 'PR'. The 'Country' field is set to 'UNITED STATES'. The 'Time Zone' field is set to '- Select Time Zone -'. The 'Phone' field is set to '000-000-0000'. The 'Emergency Phone' field is set to '000-000-0000'. The 'Responsible Party' field is set to '000-000-0000'.
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BRYCER'S INFRINGING SERVICE
("The Compliance Engine")

Brycer provides an inspection template to the inspector, as shown for example in the Tumwater RFP response at page 20:

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

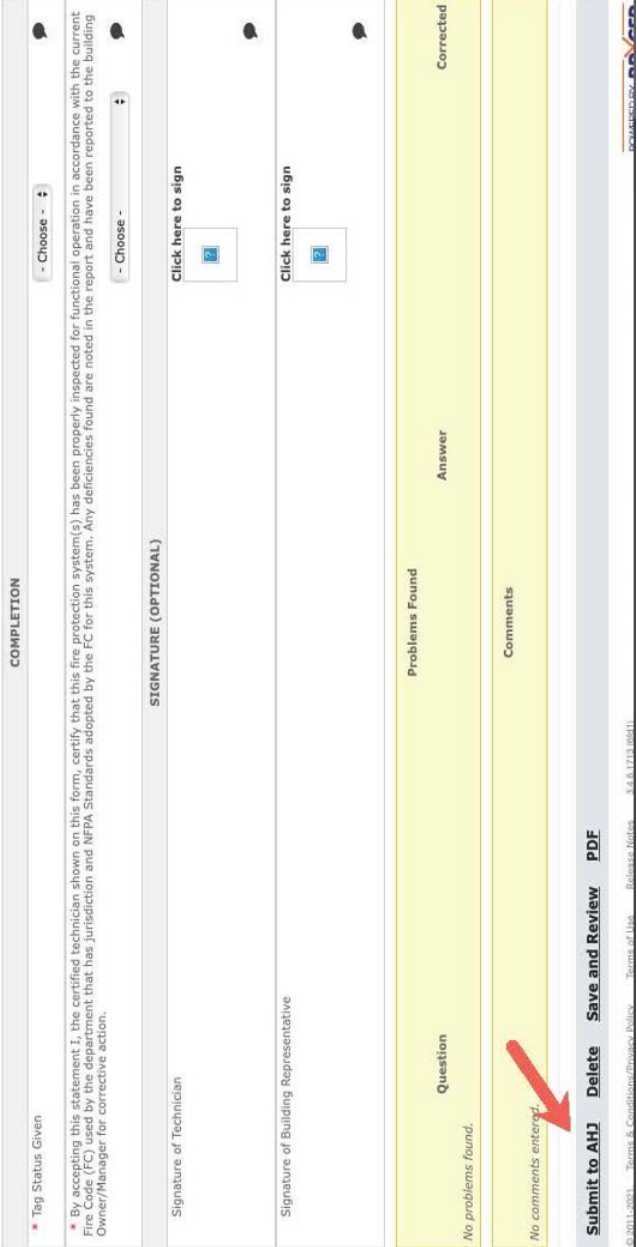
CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine") The Tumwater RFP response, page 15 shows that the City reviews uniform electronic version of inspection, testing, and maintenance reports: Report Review: Daily review of the Deficient and Compliant reports is available anytime, anywhere! TCE's Deficient and Compliant Icons will provide the City with a uniform electronic version of inspection, testing, and maintenance reports for all fire and life safety systems within the City. The following image from the The Compliance Engine website shows a standardized inspection report being submitted to the AHJ:  The screenshot shows a web form titled 'COMPLETION' with a dropdown menu for 'Tag Status Given'. Below this is a disclaimer: 'By accepting this statement I, the certified technician shown on this form, certify that this fire protection system(s) has been properly inspected for functional operation in accordance with the current Fire Code (FC) used by the department that has jurisdiction and NFPA Standards adopted by the FC for this system. Any deficiencies found are noted in the report and have been reported to the building Owner/Manager for corrective action.' The 'SIGNATURE (OPTIONAL)' section has two fields: 'Signature of Technician' and 'Signature of Building Representative', each with a 'Click here to sign' button. Below these is a table with three columns: 'Question', 'Answer', and 'Corrected'. The 'Question' column contains 'No problems found.' and 'No comments entered.' (highlighted with a red arrow). The 'Answer' column is empty. The 'Corrected' column contains 'Corrected'. At the bottom right, there are buttons for 'Submit to AHJ', 'Delete', 'Save and Review', and 'PDF'. A footer at the bottom left reads '© 2011-2024 Terms & Conditions/Privacy Policy' and a footer at the bottom right reads 'Brycer's Infringing Service'.
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EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	BRYCER'S INFRINGING SERVICE ("The Compliance Engine")
[f] 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;	The Compliance Engine stores in a database in association with the asset, the inspection information, wherein the inspection information is accessible to the users, and updates the database in association with the asset based upon the inspection information. The following images from the The Compliance Engine website shows the inspection information being updated and inputted into the database, associated with an asset and accessible by users. The first image is the initial input page. The subsequent image is in three parts and shows the asset inspection information accessible and updatable. Initial Input Page:

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	THE COMPLIANCE ENGINE HOME AHJS MY COMPANY PREMISES HE Enter Report Authority Having Jurisdiction Premises Inspection Company Company Reference Number Inspectors TEST JR TEST JR - Choose System Type - Commercial Kitchen Exhaust Cleaning Emergency Responder Radio Coverage System ✓ Fire Alarm Fire Escape Fire Pump Foam System Generator Hood Suppression System Paint/Spray Booth Suppression Private Fire Hydrant Smoke Management Systems Special System Sprinkler System Standpipe System Type Report Template Inspection Date Job Number Central Station Monitoring Monitoring Company
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U.S. Patent No. 11,126,966 Claim Chart

Inspection report (part 1/3 of image):

THE COMPLIANCE ENGINE

Support: 1-800-413-9511

HOMEAHJSMY COMPANYPREMISESHelpLOGOUT

Edit Inspection Report # [redacted]

All critical questions (denoted by an asterisk) must be answered prior to submission. Click here to edit this report.

Location of Report

Premises Address:
[redacted]

Premises Mailing Contact Information

MCDONALD'S
Contact Organization Name

Address Line 1
[redacted]

Address Line 2
[redacted]

City
[redacted]

State/Province
[dropdown menu]

Postal Code
[redacted]

First Name
GENERAL

Last Name
MANAGER

Phone
[redacted]

Email
[redacted]

AHJ Specific Fields

Central Station Monitoring
No [dropdown menu]

Monitoring Company
[redacted]

Disclaimer: The information in this section is for the Property Mailing Contact (NOT for your Inspection Company) and is accurate to the best of my knowledge.
☐ I agree.

Private Fire Hydrants

Inspection Date: [calendar icon] [time icon] Inspection Time 12:00 AM

Job Number: [text input]

Inspector: [redacted] Phone Number: [redacted]

Inspector/Tester Information

FUNCTIONALITY

Locate the hydrant lateral gate valve and close six turns. Open the hydrant lateral gate valve until a stop is reached and than back it off 1/2 turn. (This will assure that this valve is fully open.)
Hydrant(s) paint is chrome yellow

Inspection Report Number (IRN): [redacted]

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

Inspection report (part 2/3 of image):

FUNCTIONALITY	
Locate the hydrant lateral gate valve and close six turns. Open the hydrant lateral gate valve until a stop is reached and then back it off ½ turn. (This will assure that this valve is fully open.)	
Hydrant(s) paint is chrome yellow?	Yes ☒ No ☐
Paint is in good condition?	Yes ☒ No ☐
Color of bonnets and nozzle caps correct?	Yes ☒ No ☐
Are any parts missing?	Yes ☐ No ☒
Is hydrant(s) clear or vegetative growth?	Yes ☒ No ☐
Is hydrant(s) accessible?	Yes ☒ No ☐
Do operating stems open easily?	Yes ☒ No ☐
Are ports and caps in good condition?	Yes ☒ No ☐
When hydrant(s) fully open is there excessive leakage at bonnet or barrel?	Yes ☐ No ☒
Is water coming up from the ground around the barrel?	Yes ☐ No ☒
Close hydrant slowly the same number of turns necessary top open, then back off just enough to take tension off the stem. Take off all caps and let water drain out	
Any leakage while draining after main valve closed?	Yes ☐ No ☒
Threads inspected and cleaned with wire brush?	Yes ☒ No ☐
Are all caps replaced?	Yes ☒ No ☐
Are hydrants protected from traffic with bollards?	Yes ☒ No ☐

EXHIBIT 2
U.S. Patent No. 11,126,966 Claim Chart

CLAIM ELEMENT	COMPLETION Tag Status Given By accepting this statement I, the certified technician shown on this form, certify that this fire protection system(s) has been properly inspected for functional operation in accordance with the current Fire Code (FC) used by the department that has jurisdiction and NFPA Standards adopted by the FC for this system. Any deficiencies found are noted in the report and have been reported to the Building Owner/Manager for corrective action. - Choose - - Choose - SIGNATURE (OPTIONAL) Signature of Technician Click here to sign Signature of Building Representative Click here to sign Problems Found Question Answer Corrected Comments No problems found. No comments entered. Submit to AHJ Delete Save and Review PDF
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BRYCER Exhibit 1023
Page 81 of 97

EXHIBIT 3
NOTICE OF ALLOWANCE



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

16579 7590 05/18/2021
 Foster Garvey PC
 1111 Third Avenue, Suite 3000
 Seattle, WA 98101-3296

EXAMINER	
PRATT, EHRIN LARMONT	
ART UNIT	PAPER NUMBER

3629

DATE MAILED: 05/18/2021

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/011,202	01/23/2008	Andrew Moren	220867-1000-100	7547

TITLE OF INVENTION: Systems and methods for a web based inspection compliance registry and communication tool

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	08/18/2021

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

16579 7590 05/18/2021
Foster Garvey PC
1111 Third Avenue, Suite 3000
Seattle, WA 98101-3296

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/011.202	01/23/2008	Andrew Moren	220867-1000-100	7547

TITLE OF INVENTION: Systems and methods for a web based inspection compliance registry and communication tool

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	08/18/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS
PRATT, EHRIN LARMONT	3629	705-314000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/011,202	01/23/2008	Andrew Moren	220867-1000-100	7547
16579	7590	05/18/2021	EXAMINER	
Foster Garvey PC 1111 Third Avenue, Suite 3000 Seattle, WA 98101-3296			PRATT, EHRIN LARMONT	
			ART UNIT	PAPER NUMBER
			3629	
DATE MAILED: 05/18/2021				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
 (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 12/011,202	Applicant(s) Moren et al.	
	Examiner EHRIN PRATT	Art Unit 3629	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to remarks and amendments filed 03 February 2021.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-6,8,21-25 and 27-30. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov**.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some *c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892) 2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____. 3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material ____. 4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.	5. ☐ Examiner's Amendment/Comment 6. ☒ Examiner's Statement of Reasons for Allowance 7. ☐ Other _____.
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/EHRIN L PRATT/ Examiner, Art Unit 3629	/LYNDA JASMIN/ Supervisory Patent Examiner, Art Unit 3629
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DETAILED ACTION

The present application is being examined under the pre-AIA first to invent provisions.

Status of Claims

1. The following is a Notice of Allowance in response to remarks filed 03 February 2021.

Election/Restrictions

2. This application is in condition for allowance except for the presence of claims 9-20 directed to an invention non-elected without traverse. Accordingly, claims 9-20 have been cancelled.

REASONS FOR ALLOWANCE

3. Claims 1-6, 8, 21-25, and 27-30 are allowable as set forth below.
4. The following is an examiner's statement of reasons for allowance:
5. Examiner has withdrawn the 35 USC 101 rejection of claims 1-6, 8, 21-25, and 27-30 in view of the Applicant's amendments. Claims 1, 5, and 21 are directed to a process (a series of acts or steps). Thus each of the claim falls within one of the four statutory categories. Further the claims do not recite a mental process because the steps are not practically performed in the human mind. The claims do not recite any mathematical concepts. The claims recite "granting remote access 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". The claimed concept of a method that allows users to access inspection information and receive updated information from other

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users is a method of managing relationships or interactions between people. Thus the limitations fall within the certain methods of organizing human activity grouping.

The combination of additional elements that recite “retrieving, by a computer-based fire hydrant management software system, real time records of assets from a database, the database being remotely accessible and augmentable by each of the at least three classes of user;”, “analyzing the records of assets from the database to determine whether an asset requires inspection;”, “automatically creating, according to computer-executable instructions of the fire hydrant management software, a standard format inspection list, based upon the analysis of records of assets from the database, wherein the standard form inspection list includes each asset due for inspection and each asset within a designatable interval of being due for inspection;”, “for each asset on the inspection list, according to computer-enabled instructions of the fire hydrant management software, retrieving a list of qualified inspectors according to designatable attributes including proximity to the asset, wherein an inspector, upon accessing the web registry, can review and update information, including location;”, “for each asset on the inspection list, generating a standard format notice notifying the approval authority of the status of the assets assigned to the approval authority, and wherein the approval authority, upon accessing the compliance registry, may update and review the status of the assets;”, “for each asset on the inspection list, generating, according to computer-executable instructions of the fire hydrant management software, a standard format notice notifying an owner of the asset of an impending deadline for the inspection such notice to include the list of qualified inspectors for the asset, a description of the type of inspection, and a cost associated with the type of inspection, and wherein the owner of the asset, upon accessing the web-based registry, may update and review the status of the assets assigned to the owner;”, “receiving, by a computer-based system, at a

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server through an internet portal, the server in communication with the web-based registry, information that one of the qualified inspectors supplies, the information garnered by performing the required inspection;”, “retrieving, by a computer-based fire hydrant management software system, a standard format report template configured to the asset, compiling a report based upon the information the inspector supplies;”, “transmitting, by a computer-based system, the completed inspection report, based on the report template and the information garnered by performing the inspection, to the approving authority;”, “transmitting, from the approving authority, by the web-based registry, a standard format notice to the owner of the asset, the notice to include a report of the received information and where the received information includes a noted deficiency;”, “automatically, according to computer-executable instructions of the fire hydrant software, augmenting at the database, the records relative to the asset to reflect the information the inspector supplies when the inspection is approved by the approving authority;” and “after the inspection is approved by the approving authority, completing a monetary transaction between the asset owner and the inspector.” In particular, the combination of additional elements use the fire hydrant management software system in a specific manner over prior art systems by allowing remote users to process inspections in a standard format, track inspection compliance, and pay for inspection of an owned asset. The claim as a whole integrates the certain method of organizing human activity into a practical application.

Regarding the prior art, the claimed invention is directed to using a fire hydrant management software system accessible via a web registry to track a requisite inspection of an owned asset.

The claims 1, 5, and 21 identify the uniquely distinct features of: *independent claim 1 recites “granting remote access, by a computer-based system, to the web-based registry, wherein*

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the web registry is managed by 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;”, “retrieving, by a computer-based fire hydrant management software system, real time records of assets from a database, the database being remotely accessible and augmentable by each of the at least three classes of user;”, “for each asset on the inspection list, generating, according to computer-executable instructions of the fire hydrant management software, a standard format notice notifying an owner of the asset of an impending deadline for the inspection such notice to include the list of qualified inspectors for the asset, a description of the type of inspection, and a cost associated with the type of inspection, and wherein the owner of the asset, upon accessing the web-based registry, may update and review the status of the assets assigned to the owner;”, independent claim 5 recites “granting remote access to a compliance fire hydrant management software registry system hosted on a server and accessible through a web-portal 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;”, “transmitting, by the fire hydrant management software in communication with the web registry, a standard form notification to an owner of the at least one asset on the inspection list, including the list of qualified inspectors a description of the type of inspection, and a cost associated with the type of inspection, indicating that the asset requires an inspection, and wherein the owner of the asset, upon accessing the compliance fire hydrant management software registry system, may update and review the status of the assets;”, independent claim 21 recites “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 retrieving, by a

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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; analyzing the records of assets from the database to identify notification events; 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;”

The closest prior art of record Campion (US 7,649,450) teaches in col. 1:18-25 providing an authenticated test report and other authenticated test related and monitoring metrics for life safety equipment, such as fire alarm control panel for facilitating on-site walkabout testing, inspection, installation, servicing, and control of fire alarm systems. Silva (US 7,831,628) teaches (abstract) users to transmit plans, request inspections and retrieve inspection results and retrieve inspection results along with any issued certifications via a network. Inspectors also retrieve and schedule inspection requests via the network. Cober (US 2005/0108038) teaches (abstract) an online fire plan system that includes a data entry, storage, and retrieval module, and a fire plan wizard for guiding a user. Elliott (US 6,446,053) teaches col. 2:25-39 a computer implemented method and system enables a user to develop a construction proposal including a detailed graphical model and a detailed cost estimate model. Colliau (US 2008/0114638) teaches (abstract) a system for automatically scheduling an appointment for performing a task. Deaton (US 2006/0235611) teaches (§ 0002, 0009) systems and methods for recording and reporting data collected from a remote location. A portable computing device for storing the inspection

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data and a bidirectional communications interface for transmitting the inspection data to the client and receiving the inspection plan from the client. It is hereby asserted by the Examiner and upon further deliberation over all the evidence at hand, that the claims are allowable. The Examiner performed an updated search and was unable to find any other non-patent literature which would teach or suggest, other otherwise render obvious, even in combination with the Campion, Silva, Cober, Elliott, Colliau, and Deaton references, the aforementioned claim limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EHRIN PRATT whose telephone number is (571)270-3184. The examiner can normally be reached on 8-5 EST Monday-Friday.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Lynda Jasmin can be reached on 571-272-6782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <https://ppair-my.uspto.gov/pair/PrivatePair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EHRIN PRATT
Examiner
Art Unit 3629

/EHRIN L PRATT/
Examiner, Art Unit 3629

/LYNDA JASMIN/
Supervisory Patent Examiner, Art Unit 3629

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
---	---

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been
filed in the U.S. District Court _____ for the Northern District of Illinois _____ on the following
☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 22-5741	DATE FILED 10/19/2022	U.S. DISTRICT COURT for the Northern District of Illinois
PLAINTIFF Tegris, Inc.		DEFENDANT Brycer, LLC and Brycer Management, Inc.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 11,126,966	8/21/2021	Tegris, Inc.
2		
3		
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
3		
4		
5		

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

The ILND 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (See instructions on next page of this form.)

I. (a) PLAINTIFFS

TEGRIS, INC.,

(b) County of Residence of First Listed Plaintiff Pierce, Washington
(Except in U.S. plaintiff cases)

(c) Attorneys (firm name, address, and telephone number)

Alastair J. Warr, FisherBroyles, LLP, 203 N. LaSalle St., #203, Chicago, IL
60601, Tel. 317-407-5260

DEFENDANTS

BRYCER, LLC AND BRYCER MANAGEMENT, INC.

County of Residence of First Listed Defendant DuPage, Co., Illinois
(In U.S. plaintiff cases only)

Note: In land condemnation cases, use the location of the tract of land involved.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Check one box, only.)

- ☐ 1 U.S. Government Plaintiff
☐ 2 U.S. Government Defendant
☒ 3 Federal Question
(U.S. Government not a party.)
☐ 4 Diversity
(Indicate citizenship of parties in Item III.)

III. CITIZENSHIP OF PRINCIPAL PARTIES (For Diversity Cases Only.)
(Check one box, only for plaintiff and one box for defendant.)

- | | PTF | DEF | | PTF | DEF |
|---|----------------------------|----------------------------|---|---------------------------------------|---------------------------------------|
| Citizen of This State | ☐ 1 | ☐ 1 | Incorporated or Principal Place of Business in This State | ☐ 4 | ☒ 4 |
| Citizen of Another State | ☐ 2 | ☐ 2 | Incorporated and Principal Place of Business in Another State | ☒ 5 | ☐ 5 |
| Citizen or Subject of a Foreign Country | ☐ 3 | ☐ 3 | Foreign Nation | ☐ 6 | ☐ 6 |

IV. NATURE OF SUIT (Check one box, only.)

CONTRACT	TORTS	PRISONER PETITIONS	LABOR	OTHER STATUTES				
☐ 110 Insurance ☐ 120 Marine ☐ 130 Miller Act ☐ 140 Negotiable Instrument ☐ 150 Recovery of Overpayment & Enforcement of Judgment ☐ 151 Medicare Act ☐ 152 Recovery of Defaulted Student Loan (Excludes Veterans) ☐ 153 Recovery of Veteran's Benefits ☐ 160 Stockholders' Suits ☐ 190 Other Contract ☐ 195 Contract Product Liability ☐ 196 Franchise	<table border="1"><thead><tr><th>PERSONAL INJURY</th><th>PERSONAL INJURY</th></tr></thead><tbody><tr><td>☐ 310 Airplane ☐ 315 Airplane Product Liability ☐ 320 Assault, Libel & Slander ☐ 330 Federal Employers' Liability ☐ 340 Marine ☐ 345 Marine Product Liability ☐ 350 Motor Vehicle ☐ 355 Motor Vehicle Product Liability ☐ 360 Other Personal Injury ☐ 362 Personal Injury - Medical Malpractice</td><td>☐ 530 General ☐ 367 Health Care/Pharmaceutical Personal Injury Product Liability ☐ 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY ☐ 370 Other Fraud ☐ 371 Truth in Lending ☐ 380 Other Personal ☐ 385 Property Damage Product Liability</td></tr></tbody></table>	PERSONAL INJURY	PERSONAL INJURY	☐ 310 Airplane ☐ 315 Airplane Product Liability ☐ 320 Assault, Libel & Slander ☐ 330 Federal Employers' Liability ☐ 340 Marine ☐ 345 Marine Product Liability ☐ 350 Motor Vehicle ☐ 355 Motor Vehicle Product Liability ☐ 360 Other Personal Injury ☐ 362 Personal Injury - Medical Malpractice	☐ 530 General ☐ 367 Health Care/Pharmaceutical Personal Injury Product Liability ☐ 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY ☐ 370 Other Fraud ☐ 371 Truth in Lending ☐ 380 Other Personal ☐ 385 Property Damage Product Liability	☐ 510 Motions to Vacate Sentence ☐ 530 General ☐ 535 Death Penalty Habeas Corpus: ☐ 540 Mandamus & Other ☐ 550 Civil Rights ☐ 555 Prison Condition ☐ 560 Civil Detainee - Conditions of Confinement	☐ 710 Fair Labor Standards Act ☐ 720 Labor/Management Relations ☐ 740 Railway Labor Act ☐ 751 Family and Medical Leave Act ☐ 790 Other Labor Litigation ☐ 791 Employee Retirement Income Security Act PROPERTY RIGHTS ☐ 820 Copyright ☒ 830 Patent ☐ 835 Patent - Abbreviated New Drug Application ☐ 840 Trademark ☐ 880 Defend Trade Secrets Act of 2016 (DTSA)	☐ 375 False Claims Act ☐ 376 Qui Tam (31 USC 3729 (a)) ☐ 400 State Reapportionment ☐ 410 Antitrust ☐ 430 Banks and Banking ☐ 450 Commerce ☐ 460 Deportation ☐ 470 Racketeer Influenced and Corrupt Organizations ☐ 480 Consumer Credit ☐ 485 Telephone Consumer Protection Act (TCPA) ☐ 490 Cable/Sat TV ☐ 850 Securities/Commodities/Exchange ☐ 890 Other Statutory Actions ☐ 891 Agricultural Arts ☐ 893 Environmental Matters ☐ 895 Freedom of Information Act ☐ 896 Arbitration ☐ 899 Administrative Procedure Act/Review or Appeal of Agency Decision ☐ 950 Constitutionality of State Statutes
PERSONAL INJURY	PERSONAL INJURY							
☐ 310 Airplane ☐ 315 Airplane Product Liability ☐ 320 Assault, Libel & Slander ☐ 330 Federal Employers' Liability ☐ 340 Marine ☐ 345 Marine Product Liability ☐ 350 Motor Vehicle ☐ 355 Motor Vehicle Product Liability ☐ 360 Other Personal Injury ☐ 362 Personal Injury - Medical Malpractice	☐ 530 General ☐ 367 Health Care/Pharmaceutical Personal Injury Product Liability ☐ 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY ☐ 370 Other Fraud ☐ 371 Truth in Lending ☐ 380 Other Personal ☐ 385 Property Damage Product Liability							
REAL PROPERTY ☐ 210 Land Condemnation ☐ 220 Foreclosure ☐ 230 Rent Lease & Ejectment ☐ 240 Torts to Land ☐ 245 Tort Product Liability ☐ 290 All Other Real Property	CIVIL RIGHTS ☐ 440 Other Civil Rights ☐ 441 Voting ☐ 442 Employment ☐ 443 Housing/Accommodations ☐ 445 Amer. w/ Disabilities-Employment ☐ 446 Amer. w/Disabilities - Other ☐ 448 Education	BANKRUPTCY ☐ 422 Appeal 28 USC 158 ☐ 423 Withdrawal 28 USC 157 IMMIGRATION ☐ 462 Naturalization Application ☐ 463 Habeas Corpus - Alien Detainee (Prisoner Petition) ☐ 465 Other Immigration Actions	FORFEITURE/PENALTY ☐ 625 Drug Related Seizure of Property 21 USC 881 ☐ 690 Other	SOCIAL SECURITY ☐ 861 HIA (1395ff) ☐ 862 Black Lung (923) ☐ 863 DIWC/DIWW (405(g)) ☐ 864 SSID Title XVI ☐ 865 RSI (405(g)) FEDERAL TAXES ☐ 870 Taxes (U.S. Plaintiff or Defendant) ☐ 871 IRS—Third Party 26 USC 7609				

V. ORIGIN (Check one box, only.)

- ☒ 1 Original Proceeding
☐ 2 Removed from State Court
☐ 3 Remanded from Appellate Court
☐ 4 Reinstated or Reopened
☐ 5 Transferred from Another District (specify)
☐ 6 Multidistrict Litigation - Transfer
☐ 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTION (Enter U.S. Civil Statute under which you are filing and write a brief statement of cause.)

35 U.S.C. 271, Infringement of U.S. Patent 11,126,966

VII. PREVIOUS BANKRUPTCY MATTERS (For nature of suit 422 and 423, enter the case number and judge for any associated bankruptcy matter previously adjudicated by a judge of this Court. Use a separate attachment if necessary.)**VIII. REQUESTED IN COMPLAINT:**

☐ Check if this is a class action under Rule 23, F.R.C.V.P.

Demand \$

CHECK Yes only if demanded in complaint:

Jury Demand: ☐ Yes ☐ No**IX. RELATED CASE(S) IF ANY** (See instructions):

Judge

Case Number

X. Is this a previously dismissed or remanded case?☐ Yes ☒ No If yes, Case #

Name of Judge

Date: October 18, 2022

Signature of Attorney of Record /s/ Alastair J. Warr

BRYCER Exhibit 1023

Authority for Civil Cover Sheet

The ILND 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

- I.(a) Plaintiffs-Defendants.** Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use
(b) County of Residence. For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the
(c) Attorneys. Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".
- II. Jurisdiction.** The basis of jurisdiction is set forth under Rule 8(a), F.R.Cv.P., which requires that jurisdictions be shown in pleadings. Place an "X" United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here. United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box. Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; **NOTE: federal question actions take precedence over diversity cases.**)
- III. Residence (citizenship) of Principal Parties.** This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.
- IV. Nature of Suit.** Place an "X" in the appropriate box. If there are multiple nature of suit codes associated with the case, pick the nature of suit code that is most applicable. Click here for: [Nature of Suit Code Descriptions](#).
- V. Origin.** Place an "X" in one of the seven boxes.
Original Proceedings. (1) Cases which originate in the United States district courts.
Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441.
Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.
Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.
Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.
Multidistrict Litigation – Transfer. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C.
Multidistrict Litigation – Direct File. (8) Check this box when a multidistrict case is filed in the same district as the Master MDL docket.
PLEASE NOTE THAT THERE IS NOT AN ORIGIN CODE 7. Origin Code 7 was used for historical records and is no longer relevant due to changes in statute.
- VI. Cause of Action.** Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC 553 Brief Description: Unauthorized reception of cable service
- VII. Requested in Complaint.** Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.
Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction.
Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.
- VIII. Related Cases.** This section of the JS 44 is used to reference related pending cases, if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.