

UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT TRIAL AND APPEAL BOARD

MOTOROLA SOLUTIONS, INC.
Petitioner

v.

APPLIED CAPITAL, INC.
Patent Owner

Case No. IPR2023-00418
Patent No. 8,378,817

**PETITION FOR INTER PARTES REVIEW OF CLAIMS 1-16 OF
U.S. PATENT NO. 8,378,817**

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Ex.	Description
1001	U.S. Patent No. 8,378,817 to Rodney Fox (filed January 28, 2010, and issued February 19, 2013) (“’817 patent” or “Challenged Patent”)
1002	Declaration of Nathaniel Polish in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 8,378,817, with CV attached as Appendix A (“Polish Decl.”)
1003	File History of U.S Patent No. 8,378,817 (App. No. 12/695,373) (“’817 Patent File History”)
1004	U.S. Provisional Application No. 61/147,948 (filed January 28, 2009) (“January Provisional”)
1005	U.S. Provisional Application No. 61/228,044 (filed July 23, 2009) (“July Provisional”)
1006	Mem. And Order on Claim Construction, <i>Applied Capital, Inc., v The ADT Corp. and ADT LLC</i> , No. 1:16-cv-00815 (Dist. Ct. N.M.) (“Markman Order”)
1007	U.S. Patent No. 8,191,005 to John Joseph Baier et al., entitled “Dynamically Generating Visualizations in Industrial Automation Environment as a Function of Context and State Information” (filed Sep. 27, 2007, and issued May 29, 2012) (“Baier”)
1008	U.S. Patent Publication No. 2005/0108364 to David M. Callaghan and Brian A. Batke, entitled “System and Methods that Utilize Scalable Vector Graphics to Provide Web-Based Visualization of a Device” (filed as App. No. 10/731,940 on Dec. 10, 2003, and published May 19, 2005) (“Callaghan”)
1009	U.S. Patent Publication No. 2002/0161885 to Sloan K. Childers, John Elderton, and Michael Primm, entitled “Methods for Displaying Physical Network Topology and Environmental Status by Location, Organization, or Responsible Party” (filed as App. No. 10/107,962 on Mar. 27, 2002, and published Oct. 31, 2002) (“Childers”)
1010	U.S. Patent Publication No. 2002/0143934 to Geoffrey T. Barker et al., entitled “System and Method for Providing Configurable Security Monitoring

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	Utilizing an Integrated Information System” (filed as App. No. 09/825,506 on Apr. 3, 2001, and published Oct. 3, 2002) (“ Barker ”)
1011	U.S. Patent Publication No. 2007/0290830A1 to Scott A. Gurley, entitled “Remotely Monitored Security System” (filed as App. No. 11/453,646 on Jun. 15, 2006, and published Dec. 20, 2007) (“ Gurley ”)
1012	Siemens Energy & Automation, <i>For remote monitoring, just hook it up and log on</i> , CHEMICAL ENGINEERING, Dec. 2002, at 44D-2.
1013	U.S. Patent No. 8,064,412 to Thomas D. Petite, entitled “Systems and Methods for Monitoring Conditions” (filed as App. No. 11/125,009 on May 9, 2005, and issued Nov. 22, 2011) (“ Petite ”)
1014	European Patent No. 1,381,006 to Dietrich Falk et al., entitled “Monitoring System and Monitoring Method” (filed as App. No. 03254377.9 on July 10, 2003, and issued Aug. 23, 2006) (“ Falk ”)
1015	US Patent No. 5,499,196 to Steven M. Pacheco, entitled “Sensor Interface for Computer-Based Notification System” (filed as App. No. 08/139,544 on Aug. 18, 1993, and issued Mar. 12, 1996) (“ Pancheco ”)
1016	U.S. Patent No. 6,281,790 to David E. Kimmel et al., entitled “Method and Apparatus for Remotely Monitoring a Site” (filed as App. No. 09/387,496 on Sep. 1, 1999, and issued Aug. 28, 2001) (“ Kimmel ”)
1017	U.S. Patent No. 7,429,921 to John E. Seeley and Mitchell Black, entitled “Communication system for a Fire Alarm or Security System” (filed as App. No. 11/259,980 on Oct. 27, 2005, and issued Sep. 30, 2008) (“ Seeley ”)
1018	U.S. Patent No. 7,180,420 to Mike Mauer, entitled “System and Method Using Triangulation with RF/LF and Infrared Devices for Tracking Objects” (filed as App. No. 10/853,396 on May 25, 2004, and issued Feb. 20, 2007) (“ Mauer ”)
1019	RFC 791: Internet Protocol, DARPA Internet Program Protocol Specification (September 1981) (<i>retrieved from</i> http://web.archive.org/web/20060104025009/https://www.rfc-editor.org/rfc/rfc791.txt) (2006)
1020	U.S. Patent No. 9,728,082 to Rodney Fox (filed Feb. 14, 2013, published June 20, 2013, and issued Aug. 8, 2017) (“ 082 patent ”)

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1021	RFC 793: Transmission Control Protocol, DARPA Internet Program Protocol Specification (Sept. 1981) (<i>retrieved from</i> https://web.archive.org/web/20051230005848/https://www.ietf.org/rfc/rfc793.txt) (2005)
1022	U.S. Patent Publication No. 2009/0089709 to John Joseph Baier et al., entitled “Dynamically Generating Visualizations in Industrial Automation Environment as a Function of Context and State Information” (filed Sep. 27, 2007, and published April 2, 2009)
1023	U.S. Patent No. 3,643,170 to Leon J. Stanger, entitled “Envelope Delay Compensation Circuit” (filed as Appl. No. 887,970 on Dec. 24, 1969, and issued Feb. 15, 1972)
1024	RFC 2616: Hypertext Transfer Protocol – HTTP/1.1 (June 1999) (<i>retrieved from</i> https://web.archive.org/web/20051231045808/https://www.ietf.org/rfc/rfc2616.txt) (2005)
1025	GE Security Concord User Instructions (2004)
1026	U.S. Patent No. 7,392,309 to Sloan K. Childers, John Elderton, and Michael Primm, entitled “Methods for Displaying Physical Network Topology and Environmental Status by Location, Organization, or Responsible Party” (filed as App. No. 10/107,962 on Mar. 27, 2002, published Oct. 31, 2002, and issued June 24, 2008)
1027	U.S. Patent No. 726,292 to Edwin T. Holmes, entitled “Burglar-Alarm System” (filed on Jul. 18, 1900, and issued Apr. 28, 1903)
1028	<i>ADT LLC and The ADT Corp. v. Applied Capital, Inc.</i> , IPR2017-01825, Paper 1 (PTAB Jul. 21, 2017) (“ Paper 1 ”)
1029	<i>ADT LLC and The ADT Corp. v. Applied Capital, Inc.</i> , IPR2017-01825, Paper 7 (PTAB Jan. 24, 2018) (“ Paper 7 ”)
1030	<i>Applied Capital, Inc. v. The ADT Corp. et al.</i> , 1:16-cv-00815, Dkt. 138 (D. N.M. June 17, 2019).
1031	U.S. Patent No. 6,661,340 to Michael J. Saylor, Alison Slavin, and Jean-Paul Hugues Martin, entitled “System and Method for Connecting Security

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	Systems to a Wireless Device” (filed as App. No. 09/840,302 on Apr. 24, 2001, and issued Dec. 9, 2003) (“Saylor”)
1032	U.S. Patent No. 8,291,309 to David M. Callaghan and Brian A. Batke, entitled “Systems and Methods that Utilize Scalable Vector Graphics to Provide Web-Based Visualizations of Device” (filed as App. No. 10/731,940 on Dec. 10, 2003, and issued Oct. 16, 2012)
1033	File History of U.S Patent No. 9,728,082 (App. No. 13/767,580) (“’082 Patent File History”)

MANDATORY NOTICES UNDER 37 C.F.R. 42.8(a)(1)

A. Real Party-in-Interest under 37 C.F.R. § 42.8(b)(1)

Motorola Solutions, Inc. (“MSI” or “Petitioner”) is the real party in interest for this *inter partes* review (“IPR”).

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

On August 4, 2022, Applied Capital, Inc. (“Patent Owner” or “PO”) filed a complaint in the Eastern District of Texas for alleged infringement of U.S. Patent Nos. 8,378,817 and 9,728,082. *See Applied Capital, Inc. v. Motorola Solutions, Inc.*, Case No. 6:22-cv-00304-JDK (E.D. Tex.) (“EDTX Proceeding”). Petitioner moved to dismiss the complaint on October 11, 2022. PO filed an amended complaint against Petitioner on October 25, 2022. Petitioner moved to dismiss the amended complaint on November 8, 2022. That motion is pending. The EDTX Proceeding may affect, or be affected by, decisions in this proceeding.

Concurrently herewith Petitioner is also filing a Petition for IPR for U.S. Patent No. 9,728,082.

In addition to the matters between Petitioner and Patent Owner, a prior petition for IPR was filed on July 21, 2017, by third parties ADT LLC and the ADT Corporation (collectively, “ADT”), challenging claims 1-4 and 6-16 of the ’817 patent. Ex[1028]. ADT’s Petition asserted two obviousness grounds, both of which relied on U.S. Patent No. 6,661,340 to Saylor (“Saylor”) as the primary reference.

Id., 16. The Board issued a Decision Denying Institution on January 24, 2018. Ex[1029].

PO also filed a complaint asserting infringement of the '817 patent against ADT in the District of New Mexico on July 13, 2016. *See Applied Capital, Inc. v. The ADT Corp.*, 1:16-cv-00815, Dkt. 1 (D.N.M.) ("ADT Matter"). After completion of IPR2017-01825, PO filed an Amended Complaint asserting infringement of the '082 patent. *Id.*, Dkt. 78. The court issued a *Markman* Order on August 12, 2019. Ex[1006]. As described in §IX, the order adopted each of ACI's proposed constructions. The case was settled and dismissed before trial on May 24, 2021. ADT Matter, Dkt. 281.

C. Designation of Counsel under 37 C.F.R. § 42.8(b)(3)

Petitioners designate lead and back-up counsel as noted below. A Power of Attorney is filed concurrently herewith under 37 C.F.R. § 42.10(b).

Lead Counsel	Backup Counsel
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D. Service Information under 37 C.F.R. § 42.8(b)(4)

A copy of the entire Petition, including all Exhibits and Power of Attorney is being served by USPS overnight mail, costs prepaid, to the address of the attorney or agent of record for PO at the USPTO: Jeffrey Myers, Wilcox & Myers, P.C., P.O. Box 70238, Albuquerque, NM 87197; with a courtesy copy to counsel in the EDTX

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Proceeding: Chijoke E. Offor, The Shore Firm, 901 Main Street, Ste 3300, Dallas, TX 75202, coffor@shorefirm.com via email.

Petitioner consents to service by electronic mail at dlmsi-aci-ipr@bakerbotts.com.

CLAIMS LISTING

Claim Element	Claim Language from '817 Patent
1(pre)	A method comprising:
1(a)	receiving one or more signals containing a device identifier and a device condition from one or more remote alarm monitoring systems
1(b)	retrieving enhanced information based on the device identifier and the device condition;
1(c-1)	determining one or more communication methods and communication destinations based on the device identifier and the device condition; and
1(c-2)	dispatching the enhanced information to the one or more communication destinations using the one or more communication methods; and
1(d-1)	wherein the retrieving enhanced information based on the device identifier and the device condition comprises retrieving images based on the device identifier and the device condition, the images comprising all of the members selected from the group consisting of
1(d-2)	superimposed visual indicators,
1(d-3)	hierarchically organized graphical images, and
1(d-4)	vector-based graphical images.
2	The method of claim 1, wherein the receiving one or more signals containing a device identifier and a device condition from one or more remote alarm monitoring systems comprises: receiving one or more signals containing a device identifier for a smoke detector, a pull station, a security detector, a carbon monoxide detector, and a check-in monitor from one or more remote alarm monitoring systems.

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Claim Element	Claim Language from '817 Patent
3	The method of claim 1, wherein the receiving one or more signals containing a device identifier and a device condition from one or more remote alarm monitoring systems comprises: receiving one or more signals containing a device condition of normal, fault, and supervisory from one or more remote alarm monitoring systems.
4	The method of claim 1, wherein the retrieving enhanced information based on the device identifier and the device condition comprises: retrieving enhanced information including one or more sounds based on the device identifier and the device condition.
5	The method of claim 4, wherein the retrieving enhanced information including one or more sounds based on the device identifier and the device condition comprises: retrieving enhanced information including one or more sounds organized on one or more graphical images based on the device identifier and the device condition.
6	The method of claim 1, wherein the retrieving enhanced information based on the device identifier and the device condition comprises: retrieving enhanced information including one or more communication links based on the device identifier and the device condition.
7	The method of claim 6, wherein the retrieving enhanced information including one or more communication links based on the device identifier and the device condition comprises: retrieving enhanced information including one or more communication links organized on one or more graphical images based on the device identifier and the device condition.
8	The method of claim 1, wherein the retrieving enhanced information based on the device identifier and the device condition comprises: retrieving enhanced information including written information based on the device identifier and the device condition.
9	The method of claim 8, wherein the retrieving enhanced information including written information based on the device identifier and the device condition comprises: retrieving enhanced information including date/time information, account information, premises

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Claim Element	Claim Language from '817 Patent
	information, device information, condition information, support information, contact information, linked information, and instructional information based on the device identifier and the device condition.
10	The method of claim 8, wherein the retrieving enhanced information including written information based on the device identifier and the device condition comprises: retrieving enhanced information including written information organized on one or more graphical images based on the device identifier and the device condition.
11	The method of claim 1, wherein the determining one or more communication methods and communication destinations based on the device identifier and the device condition comprises: determining one or more communication methods of email, text message, instant message, website link, phone, and mail based on the device identifier and the device condition.
12	The method of claim 1, wherein the determining one or more communication methods and communication destinations based on the device identifier and the device condition comprises: determining one or more device communication destinations of a personal computer, a phone, a mobile device, a display, and a custom device based on the device identifier and the device condition.
13	The method of claim 1, wherein the determining one or more communication methods and communication destinations based on the device identifier and the device condition comprises: determining one or more entity communication destinations of an authority, a first responder, a service company, an owner, a manager, a staff, an occupant, a supplier, a customer, a neighbor, and a custom entity based on the device identifier and the device condition.
14	The method of claim 1, wherein the dispatching the enhanced information to the one or more communication destinations using the one or more communication methods comprises: dispatching the enhanced information automatically without requiring operator intervention to the one or more communication destinations using the one or more communication methods.

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Claim Element	Claim Language from '817 Patent
15	The method of claim 1, further comprising: receiving enhanced information, one or more communication methods, and one or more communication destinations via a user interface that is remotely accessible.
16	The method of claim 1, further comprising: receiving one or more communication methods and one or more communication destinations from data of a personal device.

I. INTRODUCTION

The '817 patent is directed to a premises monitoring system. In the ADT Matter, PO's counsel described the supposed "innovation" as an "interface" with "click[able]" icons on a map to indicate when a "door open[s]" or "a smoke detector goes off." Ex[1030], 9:24-10:8. But, by 2009, the '817 patent's alleged priority date, systems providing maps with clickable icons representing device alarms had been widely implemented and described in technical literature. There is nothing novel or non-obvious about the Challenged Claims. Petitioner respectfully requests trial on the below grounds.

II. REQUIREMENTS UNDER 37 C.F.R. § 42.104

A. Grounds for Standing

Petitioner certifies that the '817 patent is available for IPR and that Petitioner is not barred or estopped from requesting an IPR challenging the patent claims on the grounds identified below.

B. Identification of Challenge

Ground	Challenged Claims	Statutory Basis	Prior Art Reference
1	1-16	§102	Baier
2	1-16	§103	Baier and knowledge of a person of ordinary skill in the art ("POSITA")

3	1-16	§103	Baier and Callaghan and knowledge of a POSITA
4	1-16	§103	Childers and Barker and knowledge of a POSITA

III. DISCRETIONARY DENIAL IS NOT WARRANTED

A. *General Plastics* and *NHK/Fintiv* Do Not Counsel Discretionary Stay Under 35 U.S.C. § 314(a)

Petitioner has filed no other petitions against the '817 patent, thus the *General Plastics* factors weigh in favor of institution. *Gen. Plastics Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (Sept. 6, 2017) (precedential). Although a prior petition was filed by ADT, there is no relationship between Petitioner and ADT. ADT is not involved in the present Petition, and Petitioner was not involved in the earlier petition. Accordingly, factor 1 weighs in favor of institution. *Cf. Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 at 9-10 (Apr. 2, 2019) (precedential). In this scenario, “factors 2-5 bear little relevance.” *Alcatel-Lucent USA Inc. v. Oyster Optics, LLC*, IPR2018-00070, Paper 14 at 14 (May 10, 2018). Furthermore, the multiple petitions against the '817 patent are “a direct result of [ACI’s] own litigation activity.” *W. Digital Corp. v. SPEX Techs., Inc.*, IPR2018-00084, Paper 14 at 18 (Apr. 25, 2018). Thus, the PTAB should consider this Petition on the merits.

There is also no basis for discretionary denial under *NHK/Fintiv*. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (designated precedential

May 5, 2020). The EDTX Litigation is in its earliest stages, with no schedule, no discovery, and no trial date. Moreover, this Petition was filed expeditiously less than five months after the original complaint was served, and Petitioner intends to seek a stay in favor of this IPR.

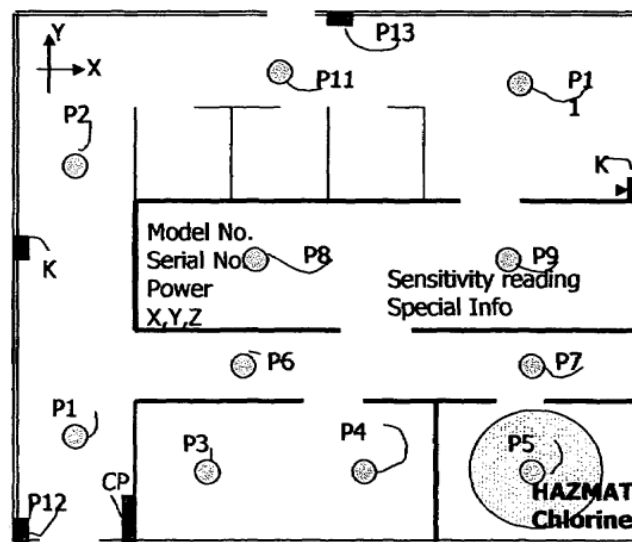
B. Discretionary Denial is Not Warranted Under 35 U.S.C. § 325(d)

Under *Advanced Bionics*, the Board must first consider whether the same or substantially the same art was previously presented to the Office. *Advanced Bionics, LLC. v. Med-El Elektronimeizinishce Gerate GmbH*, IPR2019-01469, Paper 6 at 8-9 (Feb. 13, 2020) (precedential). Here, the references relied upon by Petitioner—Baier, Callaghan, Childers, and Barker—were not evaluated during prosecution or the prior IPR and are not cumulative (§§IX-X); thus, the first requirement of *Advanced Bionics* is not satisfied. Indeed, these references are substantially different from the main reference relied on in the prior IPR (Saylor), which, as described in §V.B, taught disparate functionalities that were improperly combined in the prior IPR. Petitioner’s grounds herein are significantly different from those presented in the prior IPR and do not have the same deficiencies. §§IX-X.

IV. KNOWLEDGE OF A POSITA

By 2009, networking and monitoring systems had been known for decades. Ex[1002], ¶¶33-37. These systems generally allowed a central server to remotely monitor separate facilities, receive information about relevant alarms in the facilities,

and log and respond to the events. Ex[1002], ¶¶38-41. Seeley (Ex[1017]) depicts a typical alarm and security system well known by 2005. Ex[1002], ¶49. When a sensor in the system alarms, it sends a signal to a remote processing station, which checks a database for “contact information for who gets notified, in what order they are notified,” “*e.g.*, responders first....” Ex[1017], 6:29-34. The database also provides new floorplan graphics to the responders (*e.g.*, FIG.4D below), which depict smoke/fire detectors and motion sensors (P1-P13) and highlights the alarming sensor by changing its size and/or color. *Id.*, 8:7-15, 7:56-67, 5:32-35; Ex[1002], ¶49.



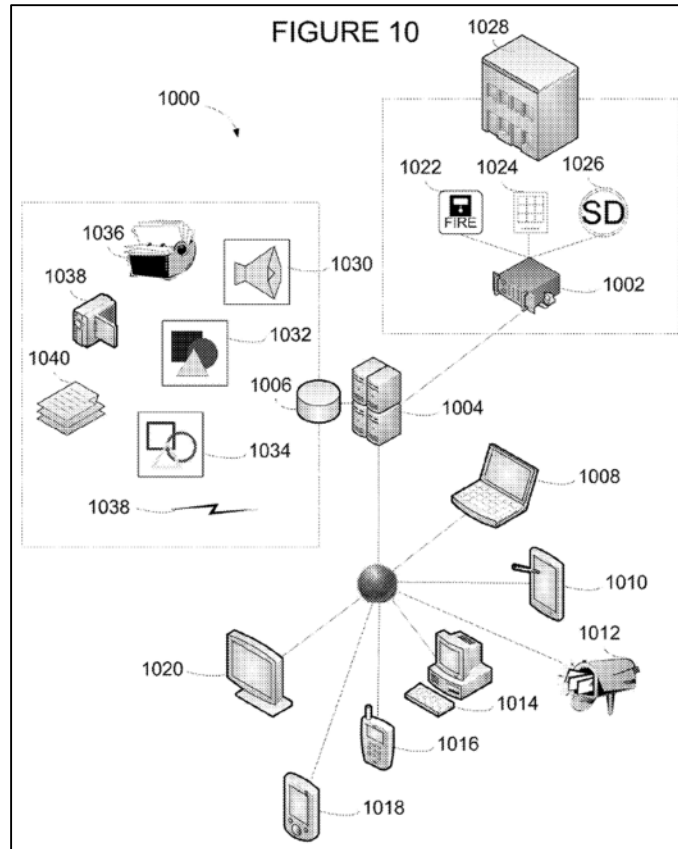
By 2009, typical monitoring systems had the same basic functionality: (1) the ability to receive signals from remote devices identifying the device and its alarm (*e.g.*, fire alarm triggered); (2) the ability to represent the alarm (*e.g.*, as a map with a selectable icon representing the fire alarm); and (3) the ability to determine which

entities should be notified (*e.g.*, building owner) and how they should receive it (*e.g.*, text message). Ex[1002], ¶37. The '817 patent claims nothing more than these well-known features.

V. OVERVIEW OF THE '817 PATENT

The '817 patent is directed to a “premise monitoring system.”¹ Ex[1001], 1:13-14. As shown in FIG.10 below, the premises monitoring system (1004) (1) receives “signals” containing “device identifiers” and “device conditions” such as from a fire alarm; (2) “retrieve[s]” so-called “enhanced information” (*e.g.*, a map with clickable icons) based on the device identifier and device condition; and (3) “determine[s] one or more communication methods” and “communication destinations,” including email to first responder, based on the device identifier and device condition. *Id.*, 2:15-61.

¹ The '817 patent refers to “Appendix A,” which appears to be a portion of the prosecution history. Ex[1001], 1:56-57; Ex[1003], 199-411.



The patent purports to improve on prior systems because the enhanced information “can come from anywhere” (such as the data store 1006 rather than directly from the alarm) via the internet and allows a user to “retrieve” the information “when they choose to do so.” Ex[1003], 55; Ex[1001], 2:10-15. Thus, according to the applicants, the alleged invention would cover the basic process of “email[ing]” an “Adobe PDF” to a first responder with superimposed visual indicators (icons) that are hierarchically organized (arranged relative to each other) when the first responder requests the information. Ex[1003], 55.

Nothing in this system or use-case was novel or non-obvious by 2009. The system is admittedly generic and could apply to any premises. Ex[1001], 17:50-53.

The alarm signal could come from any known device, such as a smoke detector or security detector. *Id.*, 2:4-49, 2:62-3:5. The alarm could be represented with any “icons” that are arranged relative to each other on a “floor plan.” *Id.*, 5:1-6:4. The communication destination and method could be any interested user of the system using known communication devices and protocols (*e.g.*, “a staff” or “a supplier” using a laptop to receive email). *Id.*, 2:23-27, 9:39-54, 10:13-11:31. None of the claimed features—individually or in combination—was new.

A. Prosecution History

The '817 patent was filed on January 28, 2010 as Application No. 12/695,373, with 20 claims. The Examiner rejected all original claims as obvious. Ex[1003], 64-100. To overcome these rejections, applicants amended claim 1 to add the requirement (underlined below) that the “images comprising all of the members selected from the group consisting of superimposed visual indicators, hierarchically organized graphical images, and vector-based graphical images.” *Id.*, 50-57. On December 11, 2012, the Examiner allowed the pending claims, but included an Examiner’s Amendment which changed all instances of “and/or” to “and,” as shown, for example, below. *Id.*, 26-27.

Amendment to the claims

1. (Currently Amended) A method comprising:

receiving one or more signals containing a device identifier and a device condition from one or more remote alarm monitoring systems;

retrieving enhanced information based on the device identifier [[and/or]] and the device condition;

determining one or more communication methods [[and/or]] and communication destinations based on the device identifier [[and/or]] and the device condition; and dispatching the enhanced information to the one or more communication destinations using the one or more communication methods; and

wherein the retrieving enhanced information based on the device identifier [[and/or]] and the device condition comprises retrieving images based on the device identifier [[and/or]] and the device condition, the images comprising all of the members selected from the group consisting of superimposed visual indicators, hierarchically organized graphical images, and vector-based graphical images.

Id. As demonstrated below, none of these limitations of the Challenged Claims was novel by the alleged priority date of the '817 patent.

B. Prior IPR History

On July 21, 2017, ADT filed a Petition for IPR of claims 1-4 and 6-16 of the '817 patent, asserting two obviousness grounds, each of which relied on Saylor (Ex[1031]) as the primary reference Ex[1028], 16. The Board issued a Decision Denying Institution on January 24, 2018, providing three reasons for its decision. Ex[1029], 13-17.

First, the Board found the Petition “addresse[d] only whether the ‘communication method’ is based on the device identifier and condition” but was

“silent regarding whether the ‘*communication destination*’ is based on the device identifier and condition.”² *Id.*, 13.

Second, the Board found that the Petitioner had “conflate[d] two separate functionalities of Saylor.” *Id.*, 14. Specifically, for the “dispatching” step, the Petition relied on Saylor’s “‘personal report’ functionality, which allows the user at any time to log into a website to create and view reports.” *Id.* However, for the “determining step,” the Petition relied on Saylor’s “‘notification’ functionality, which allows the user to decide who gets notified...and how...when an alarm event occurs.” *Id.* Because the Petition had not explained why a POSITA would have combined the personal report functionality and notification functionality to “allow the user to set a preference to be notified via the web,” the Board found there was not sufficient support in the record for such a combination. *Id.*, 15.

Finally, the Petition “fail[ed] to explain sufficiently whether Saylor would have taught or suggested ‘determining one or more...communication destinations based on the device identifier and condition.’” *Id.*, 16 (emphasis in original). As the Board found, Saylor’s reports could be accessed by any computer, not just the “personal computer 242” identified by the Petition, so the “personal computer 242” is determined “based on the user logging into the website from that particular computer, not ‘based on the device identifier and the device condition.’” *Id.*

² Emphasis supplied throughout, unless noted.

VI. LEVEL OF ORDINARY SKILL IN THE ART

Petitioner submits that a POSITA of the '817 patent as of January 28, 2009 (the earliest alleged priority date) would have had a bachelor's degree in computer science, electrical engineering, or a similar field, and would have had approximately two years industry experience in networking or monitoring systems. Ex[1002], ¶30.

VII. CLAIM CONSTRUCTION

In the ADT Matter, the court construed certain terms of the '817 patent, shown below (which were also PO's proposed constructions). Ex[1006]; Ex[1002] ¶¶78-87. For this Petition, Petitioner applies each of these constructions, unless noted. Without conceding that the Challenged Claims are supported under 35 U.S.C. § 112, for this Petition, Petitioner also interprets the remaining claim terms "in accordance with the ordinary and customary meaning...as understood by one of ordinary skill in the art." 37 C.F.R. § 42.100(b).

Claim	Term	Construction
1	"hierarchically organized graphical images"	"a group of graphical images arranged relative to one another and/or accessible through one another"
1	"vector-based graphical images"	"images that includes one or more vectors"

VIII. SUMMARY OF PRIOR ART

Petitioner assumes without conceding, solely for this Petition, that the '817 patent's priority date is January 28, 2009, the date of the earliest identified provisional, and thus, would be subject to the pre-AIA provisions of 35 U.S.C. §§102, 103.

A. Baier (Ex[1007])

U.S. Patent No. 8,191,005 ("Baier") is entitled "Dynamically Generating Visualizations in Industrial Automation Environment as a Function of Context and State Information." Baier was filed September 27, 2007, published April 2, 2009,³ issued May 29, 2012, and is prior art to the '817 patent at least under 35 U.S.C. §102(e).

Baier provides a "visualization system" "that more efficiently communicate[s] data to users in an industrial control system," including data from "manufacturing equipment" and "factory automation." Ex[1007], 6:60-67, 1:18-21,

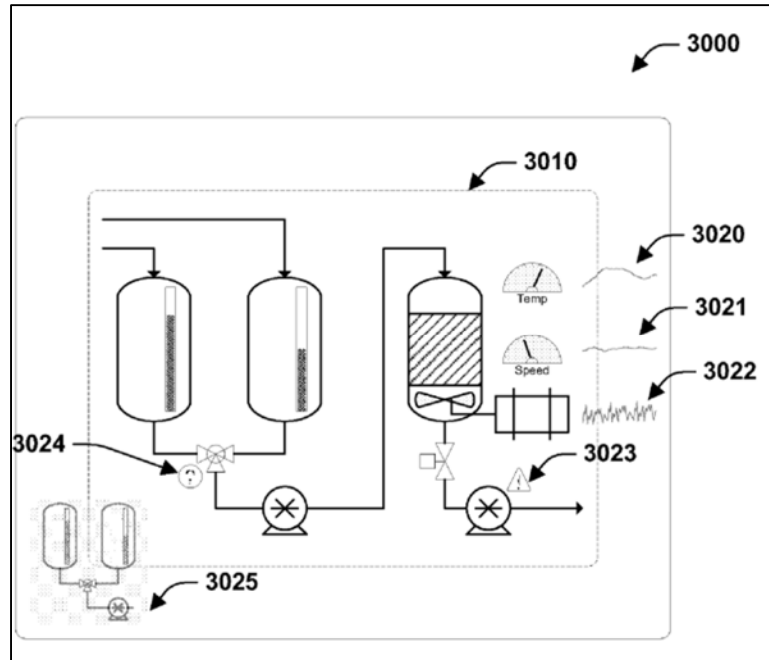
³ The specification of the Baier publication is substantively identical to that of the patent, and thus provides §112 support for Baier. *Compare* Ex[1007], with Ex[1022]; Ex[1002], ¶88,n.2. The Baier publication is also prior art under at least 35 U.S.C. § 102(e) and invalidates the claims for the same reasons as Baier. Ex[1002], ¶88,n.2.

3:22-24. The components of Baier's "visualization system" can "communicate and cooperate with various network devices across a network," such as the Internet. *Id.*, 6:12-16, 6:24-36. Typically, industrial control systems retrieve "input data" from devices and "communicate[] output data" to a user, such as "pop[] up" alarm displays or "alarm summar[ies]." *Id.*, 5:58-66, 1:36-57. Baier improves these systems by providing a customized "base presentation" and "superimpo[sing]" "situation-specific information" on the base presentation. *Id.*, 2:13-29, 10:13-23. Baier's "customized visualizations" "automatically locat[e] information that may be of interest/use" to a user by "matching attributes such as the user's identity, role, location" "with other data such as device/equipment locations, device/equipment status." *Id.*, 2:56-58, 2:30-44. "[G]iven a set of conditions," such as equipment/device alarm, type, and state, Baier's system "can automatically tune a visualization to be optimized." *Id.*, 10:13-23.

As part of generating the customized visualizations, Baier's system discloses: (1) receiving signals at a central processor from remote equipment/machines and determining a "device context," such as alarm condition and equipment/machine location, *id.*, 7:36-38, 11:7-13, 11:45-55, 30:32-37; (2) generating and "retriev[ing]" image data from a data store "[d]ynamically" as a "[f]unction of [c]ontext and [s]tate [i]nformation," including based on the equipment/machine and type of alarm, *id.*, 8:1-11, 6:37-39, 7:38-43; and (3) determining which users should

receive information about the alarm, and how to deliver that information, by “matching” a “user’s location, context, and/or role with the location and/or status of device/equipment/system being monitored,” *id.*, 11:7-13, 7:48-55.

Baier’s retrieved images have a variety of features, including selectable, configurable icons “dynamically superimposed on the base presentation component,” as shown below (icons = elements 3020-3022 and 3025). *Id.*, 4:27-29, 5:66-6:6, FIG.30, 20:49-52.



B. Callaghan (Ex[1008])

U.S. Patent Publication No. 2005/0108364 (“Callaghan”) is entitled “Systems and Methods that Utilize Scalable Vector Graphics to Provide Web-Based Visualization of a Device.” Callaghan was filed December 10, 2003 and published

May 19, 2005, and issued as U.S. Patent No. 8,291,309 (Ex[1032]) on October 16, 2012. Callaghan is prior art at least under 35 U.S.C. § 102(b).

Callaghan describes additional detail regarding types of graphical images that can be used for “remote visualization of an industrial device,” specifically via scalable vector graphics. Ex[1008], [0002]. These scalable vector graphics (SVG) are “resolution independent images that can include searchable graphics, text, labels, descriptions, etc., and links to other information.” *Id.*, [0009]. SVG files provide small-sized “vector images” “to render device-related graphics and/or text.” *Id.*, [0010].

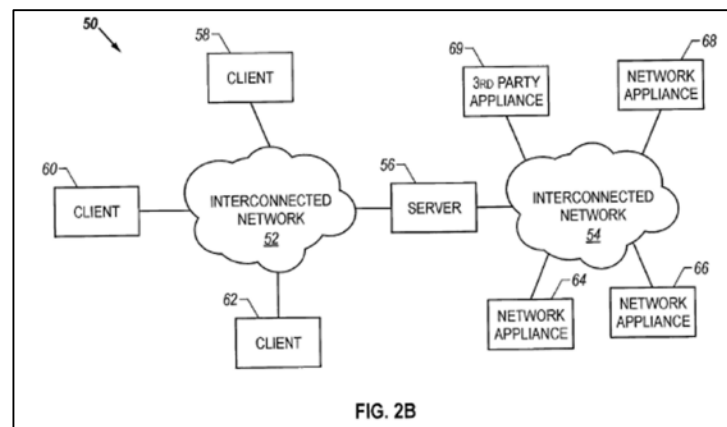
C. Childers (Ex[1009])

U.S. Patent Publication No. 2002/0161885 (“Childers”) is entitled “Methods for Displaying Physical Network Topology and Environmental Status by Location, Organization, or Responsible Party.” Childers was filed March 27, 2002, published October 31, 2002, and issued as U.S. Patent No. 7,392,309 (Ex[1026]) on June 24, 2008. Childers is prior art at least under 35 U.S.C. § 102(b).

Childers discloses a “system for remote monitoring of network appliances” (*e.g.*, servers in a server room) for “maintaining security of the equipment.” Ex[1009], [0017], [0012]. The aim of Childers’ architecture is to improve the “accessibility, organization, and presentation” of the alarm data for a user. *Id.*, [0013]-[0015]. To that end, Childers discloses generating map displays with icons

for the alarm data that can be dispatched to specific clients over a network, thus allowing the clients to monitor distributed facilities without having to incur the expense of an on-premises employee. *E.g., id.*, [0021]-[0023], [0009]-[0010].

Childers describes an architecture (below) with a central server (1) receiving “alarms” from network appliances 64, 66, 68, 69 relating to conditions, such as “temperature,” “door sensors,” “motion detectors,” etc., *id.*, [0059], [0077], [0123], FIG.2B; (2) “stor[ing] image data associated with network appliances,” *id.*, [0022]; and (3) “transferr[ing]” the image data “to the client machine[s],” *e.g.*, 58, 60, and 62 that “display data associated with the network appliances,” using, *e.g.*, “email lists,” “alert lists,” etc. to identify the destinations. *Id.*, [0021], [0023], [0141]-[0142], FIGs.9A-9B, [0197], [0128].



The images sent from the central server to the clients can include maps or other graphical elements, such as “icons” that “represent[] physical location, status, and function” of a network appliance, as shown in FIG.8C. *Id.*, [0021], [0130], [0116].

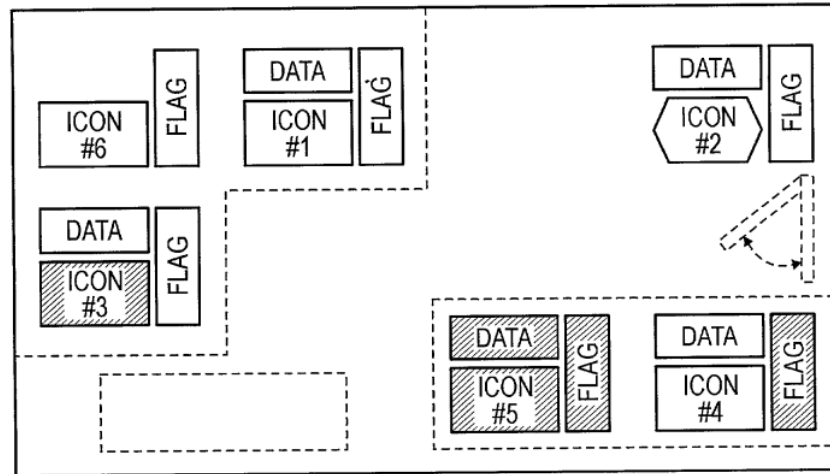


FIG. 8C

D. Barker (Ex[1010])

U.S. Patent Publication No. 2002/0143934 (“Barker”) is entitled “System and Method for Providing Configurable Security Monitoring Utilizing an Integrated Information System.” Barker was filed April 3, 2001, published October 3, 2002, and is prior art at least under 35 U.S.C. § 102(b).

Barker discloses a “security monitoring network” that can provide, *e.g.*, “smoke, fire, and/or carbon monoxide” alarms. Ex[1010], [0002]-[0004], [0033]. Barker’s software is executed on a central server and (1) receives a device identifier and condition from the monitoring devices; and (2) processes the device identifier and condition based on “rules” to determine the output and the destination and method of communication for providing the output. *E.g., id.*, [0012], [0015], [0031], [0039], [0042], [0044]-[0056], FIGs.5-6. For example, if the software determines that a rule is violated, “instructions” are provided including a “list of the authorized

users to notify...and a hierarchy of which communication medium and devices should be utilized to contact each authorized user.” *Id.*, [0054].

IX. GROUNDS 1, 2, AND 3: ANTICIPATION BY BAIER, OBVIOUSNESS IN VIEW OF BAIER ALONE AND IN VIEW OF BAIER IN COMBINATION WITH CALLAGHAN

The Challenged Claims are anticipated by Baier, or obvious in view of Baier alone or Baier in combination with Callaghan.

A. Independent Claim 1

1. 1[pre]

To the extent the preamble is limiting, Baier discloses a “*method*,” for example, a method for generating “a customized visualization” in an “industrial automation environment.” Ex[1007], 6:37-42, 11:7-13, 10:46-61; Ex[1002], ¶101.

2. 1[a]

Baier discloses “*receiving one or more signals* [e.g., at Baier’s visualization system] *containing a device identifier and a device condition* [e.g., device context information] *from one or more remote alarm monitoring systems* [e.g., from one or more connected automation devices in the system].” Ex[1002], ¶¶102-108.

Baier’s visualization system 100 receives signals from a remote alarm monitoring system—for example, from networked automation devices including “control systems, devices, and/or associated equipment” in an industrial or asset management environment. *E.g.*, Ex[1007], 6:62-67, 29:24-40 (describing application for “asset management”), 29:26-32 (Baier can apply to “plants with

wireless or wired networked equipment...linked via long distance communications lines...”), 2:14-44; *see also* Ex[1001], FIG.10, 2:9-35 (“remote alarm monitoring system” includes alarming devices remote from a central server).

For example, as shown in FIG.3 (below), Baier’s visualization system 100 includes (1) an “interface component 102” that “receives input” “provided by automation devices,” Ex[1007], 7:3-4, 7:25-29; and (2) a “context component 104” that receives the information from the interface component and “can detect, infer or determine” “context data pertaining to automation devices including control systems, devices and associated equipment,” *id.*, 7:30-38.

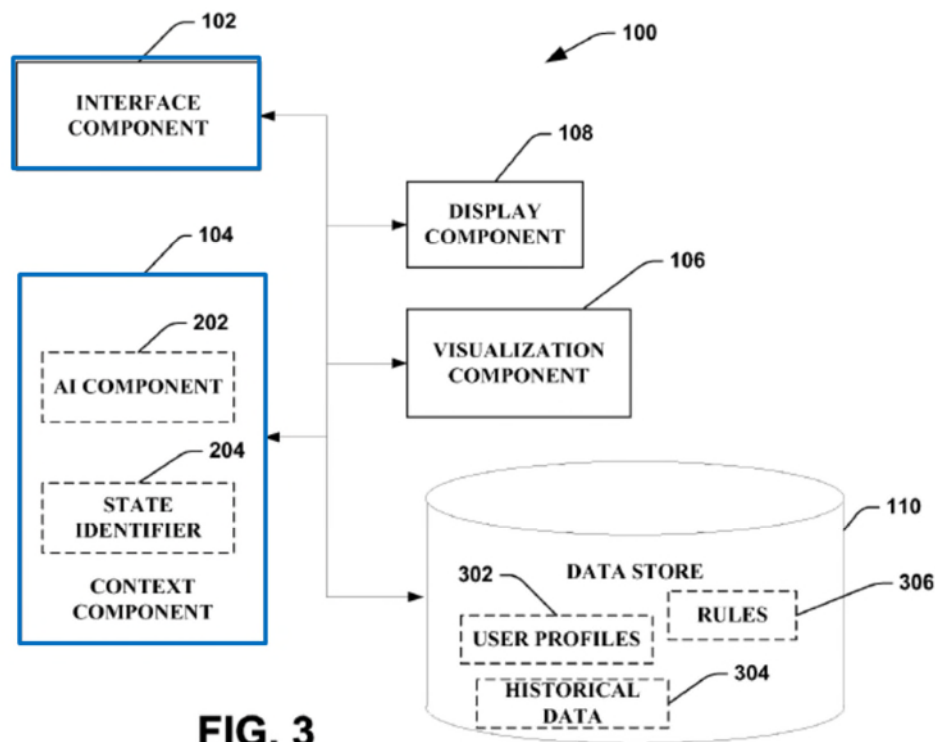
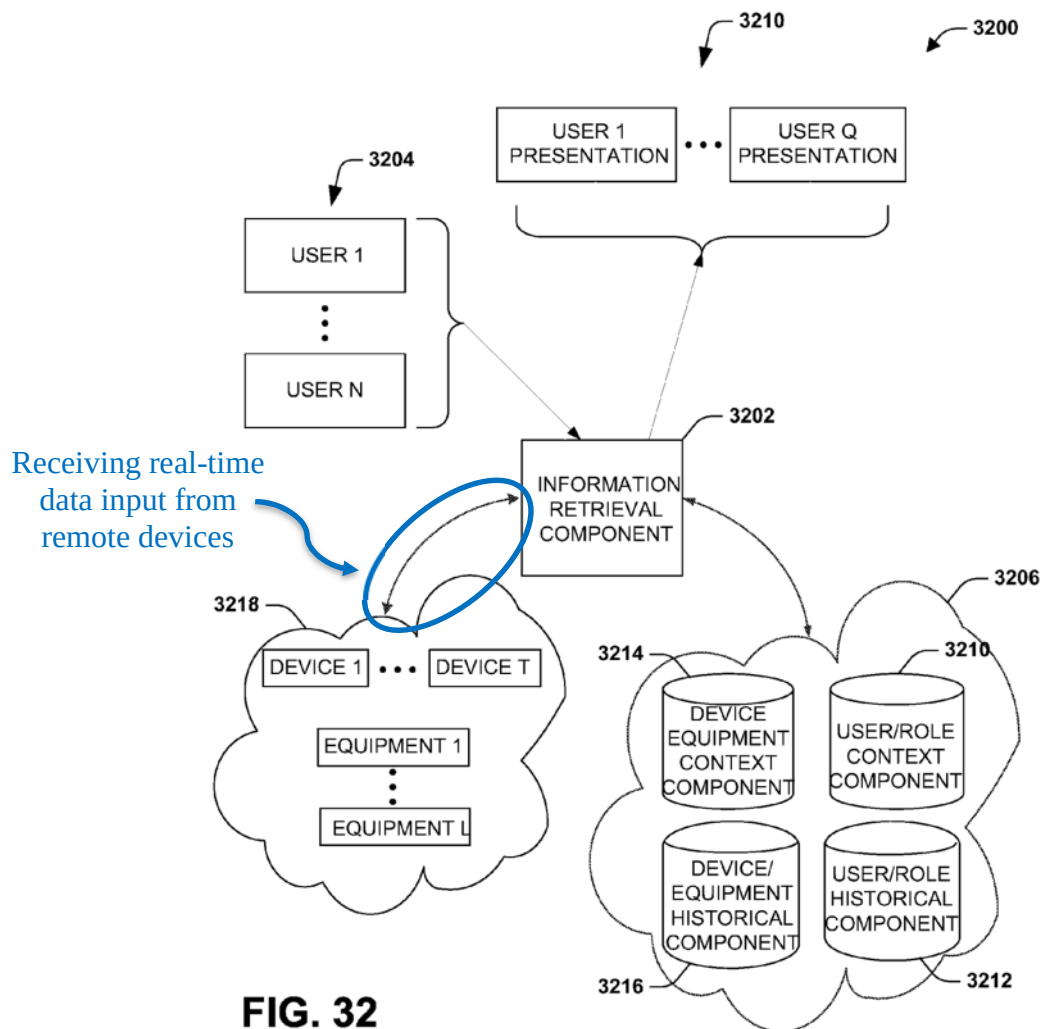


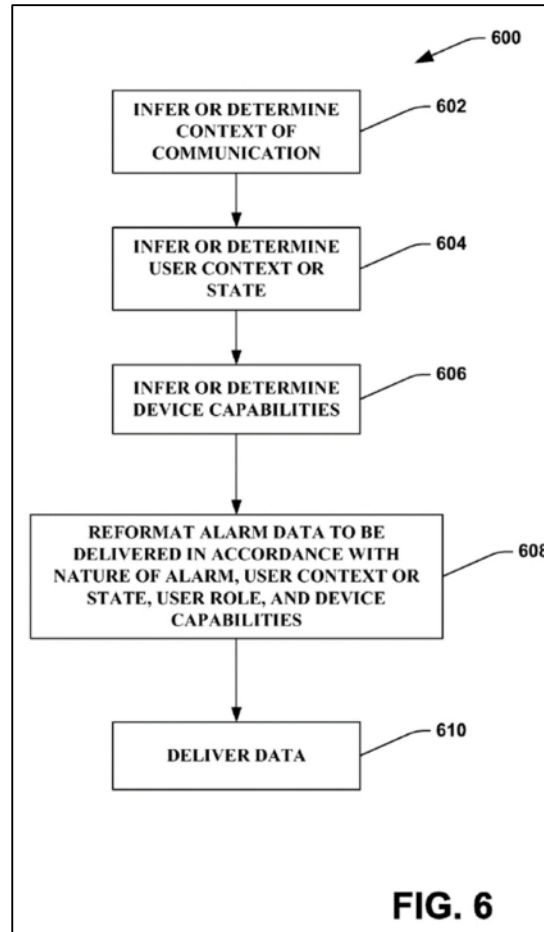
FIG. 3

As another example, FIG.32 (below) illustrates an application of Baier's visualization system in an industrial automation environment. Ex[1007], 21:4-6. In FIG.32, the “information retrieval component” performs the operations of the interface component 102 and context component 104 of FIG.3 and receives “real-time data” from device(s) (Device 1 to T) and/or equipment (Equipment 1 to L). *Id.*, 21:54-63.



The signals received from the remote alarm monitoring system also contain a device identifier and device condition. For example, the input received by interface component 102 and inferred by context component 104 includes “context data pertaining to automation devices.” Ex[1007], 7:34-38. The “[d]evice context data” includes “logical/physical locations and operating status (*e.g.*, on/off, healthy/faulty....)” as well as “warnings, *alarms*, and maintenance schedule information,” *Id.*, 7:25-38; *id.*, 24:23-40, 30:32-37, 31:37-40. “[L]ogical/physical locations” or “maintenance schedule information,” for example, *identify* a device, and an operating status or alarm provide the device’s *condition*. Ex[1002], ¶106. As another example, Baier describes the signals from the remote devices in FIG.32 (*e.g.*, Device 1 or Equipment L) as including “operating status of the device/equipment (*e.g.*, off, on, run,...), the current stage or process of each device/equipment (*e.g.*, operating, line of code being implemented,...)” Ex[1007], 21:54-63. The signals thus include both a device *identifier* (*e.g.*, Device 1 or Equipment L) and a device *condition* (*e.g.*, operating status, current stage or process). Ex[1002], ¶106.

FIG.6 also illustrates a method implemented by Baier’s visualization system to receive the device identifier and device condition. At block 602, the system receives a context of a communication, *e.g.*, an “alarm” from a particular device at a particular location being monitored. *Id.*, 11:45-60; *id.*, FIG.5, 11:7-13 (assessing “location and/or status of device/equipment/system being monitored”).



To the extent Patent Owner argues that Baier does not expressly disclose receiving a device identifier, it would have been obvious for a POSITA to implement Baier's signals to include a device identifier. Ex[1002], ¶108. Indeed, a POSITA would have understood that Baier's visualization system must necessarily receive a device identifier so it can assess the "alarms, location, type of machinery, state of system, environmental conditions" based on the received signals to customize the optimal visualization for a user. *Id.*, 10:13-23. Including a device identifier in a signal that already includes an alarm from a particular device would have been an obvious way to implement Baier's system. Any required modifications would have

been straightforward for a POSITA, who could have used the same components in the same way as disclosed in Baier, with a reasonable expectation of success. Ex[1002], ¶108.

3. 1[b]

Baier discloses “*retrieving* [e.g., by Baier’s visualization system] *enhanced information* [e.g., base presentation and graphical elements] *based on the device identifier and the device condition* [e.g., device context information].” Ex[1002], ¶¶109-114.

Baier’s visualization system retrieves enhanced information. For example, after device signals are received and analyzed, the context component 104 provides the context data “to the visualization component 106 (see FIG.4 below), which can employ such data in connection with deciding on which base presentations” (*i.e.*, “the user’s current view of the automation control system”) “or items to display” on the base presentation. Ex[1007], 7:38-43, 2:23-24, 5:58-66, 2:13-29. The visualization component 106 specifically “can generate, receive, retrieve or otherwise obtain a *graphical representation* of a production environment including one or more objects representing, inter alia, devices, information pertaining to devices (e.g., gages, thermometers...) and the presentation itself.” *Id.*, 8:1-11, 8:12-39 (retrieved graphical elements can include thumbnails, icons, widgets, among other things); Ex[1002], ¶110. Visualization component 106 can retrieve the

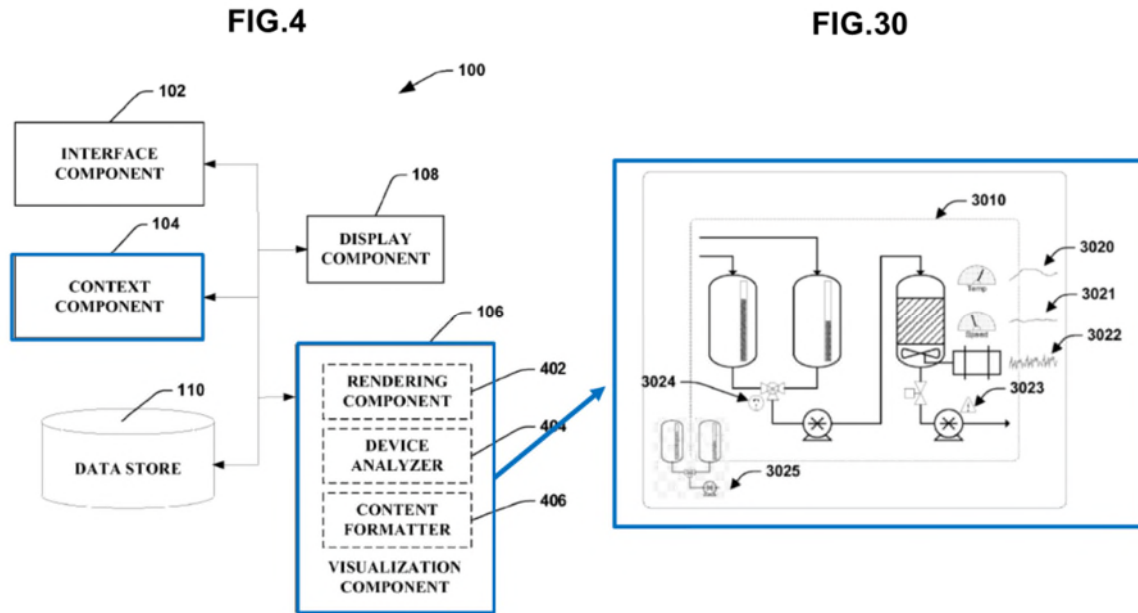
graphical representations from the data store, which “can facilitate quickly conveying relevant visualizations germane to a set of current conditions...” Ex[1007], 9:56-64. Thus, in Baier’s visualization system, “automation devices can be presented graphically in an easily comprehensible manner” as “graphics, automations, audio, and video.” Ex[1007], 7:59-62.

Baier’s visualization system retrieves the enhanced information based on a device identifier and device condition. Ex[1002], ¶¶111-112. For example, Baier’s system generates and “retriev[es]” image data from the data store “[d]ynamically” as a “[f]unction of [c]ontext and [s]tate [i]nformation,” including based on the equipment/machine and type of alarm and the “nature of the content to be displayed.” *Id.*, 8:1-11, 6:37-39, 7:38-43, 10:13-45. “[G]iven a set of conditions” such as “alarms, location, type of machinery, state of system, environmental conditions,” the system “can automatically tune a visualization to be optimized.” *Id.*, 10:13-23.

Thus, as to a particular device/equipment (*e.g.*, identified in device context information with the device’s location) and a particular condition of the device/equipment (*e.g.*, “alarm” or “state”), the system retrieves enhanced information (“retrieve[s]...a graphical representation” of the device). Ex[1007], 8:1-10, 10:13-23, 9:21-30, 9:48-55; *id.*, FIGs.7, 59, 12:11-33 (customizing visualization based on machine operating state), 27:1-44, 30:14-26, FIGs.44-53 (workflow

visualizations for the device can also be retrieved); Ex[1002], ¶112. Baier's customizable system allows for a variety of displays to be updated "dynamically" "in real-time as changes or events occur." *Id.*, 7:61-67. Accordingly, an operator can automatically be "present[ed]" with information about "operational status of the devices and/or equipment located in the area in which the operator is located." *Id.*, 22:17-31; *id.* 22:3-31, FIG.32 ("information retrieval" component sends "present[ation] information relating to" "an alarm on a device and/or piece of equipment" to user presentations 3210).

An "exemplary display" rendered by visualization component 106 is shown in FIG.30 (below) and depicts a "base presentation 3010" of specific equipment ("two tanks") as well as icons providing "situation specific information" including "historical information" about the equipment (3020 and 3021) and information indicating whether "attention is required with respect to the associated pump" (3023) and a selectable element (3025) to transition displays. *Id.*, 20:27-60; Ex[1002], ¶113.



To the extent Patent Owner argues that Baier does not expressly disclose retrieving enhanced information based on a device identifier and device condition, this limitation would have been obvious. Ex[1002], ¶114. Baier’s system “retrieve[s] or otherwise obtain[s] a graphical representation of a production environment” and customizes an optimal visualization of alarms, machine state, and machine location. Ex[1007], 8:1-11, 10:13-23. One obvious way to implement this functionality would have been to check the device identity and alarm condition to determine the specific graphical representations to retrieve from a data store. Ex[1002], ¶114. Baier’s system is already specifically designed to implement this functionality, and any modifications to Baier’s system would have been straightforward to a POSITA. *Id.* A POSITA could have used the same components in the same way as disclosed in Baier, with a reasonable expectation of success. *Id.*

4. 1[c-1]

Baier discloses “*determining one or more communication methods and communication destinations* [e.g., Baier’s visualization system determines methods of communication and recipients of the communication] *based on the device identifier and the device condition* [e.g., based on device context information].” Ex[1002], ¶¶115-122.

Baier’s visualization system determines a communication *destination* for the enhanced information, for example, a user with a display device “such as a monitor, television, computer, mobile device, web browser, or the like.” Ex[1007], 7:56-61. For each destination, Baier’s system also determines a communication *method*, including a communication format (*e.g.*, resolution) and a communication protocol (*e.g.*, “text message,” “multi-screen computer system with a broadband connection,” “email[],” or “integrat[ion] with calendars or tasks”). *Id.*, 11:63-12:10, 30:23-26, 31:36-52, 8:62-9:39.

Baier’s visualization system also determines the *communication destinations based on the device identifier and device condition*. Ex[1002], ¶117. For example, the visualization component 106 receives the device identifier and condition and “create[s] mappings/linkages” between (1) device/equipment “logical/physical locations” (device identifiers) and “operating status” (device conditions) and (2) the user’s “identity,” “roles and responsibilities,” and “areas or regions of

interest/responsibility.” Ex[1007], 7:48-55, 24:41-52, FIGs.4, 32, 42. The system “match[es]” each user’s “location, context, and/or role with the location and/or status of device/equipment/system monitored.” *Id.*, 11:7-13. Information about that device can be provided automatically “without prompting or requesting such interest information from the user(s)” based on matching the location and status of device/equipment being monitored to the user. *Id.*, 19:57-66, 20:6-12, 21:4-13.

As another example, in FIG.32, the system “make[s] a determination whether a user 3204 would be interested in information relating to a particular/device/equipment.” *Id.*, 21:54-22:16 (“information retrieval component 3202” receives “real-time data from device(s) and/or equipment” and makes linkages between the devices and the users). “[I]f there is an alarm on a device and/or piece of equipment, based on the user context, the user may be presented with information relating to such alarm condition.” *Id.* “This determination can be made based on...*device/equipment context.*” *Id.*

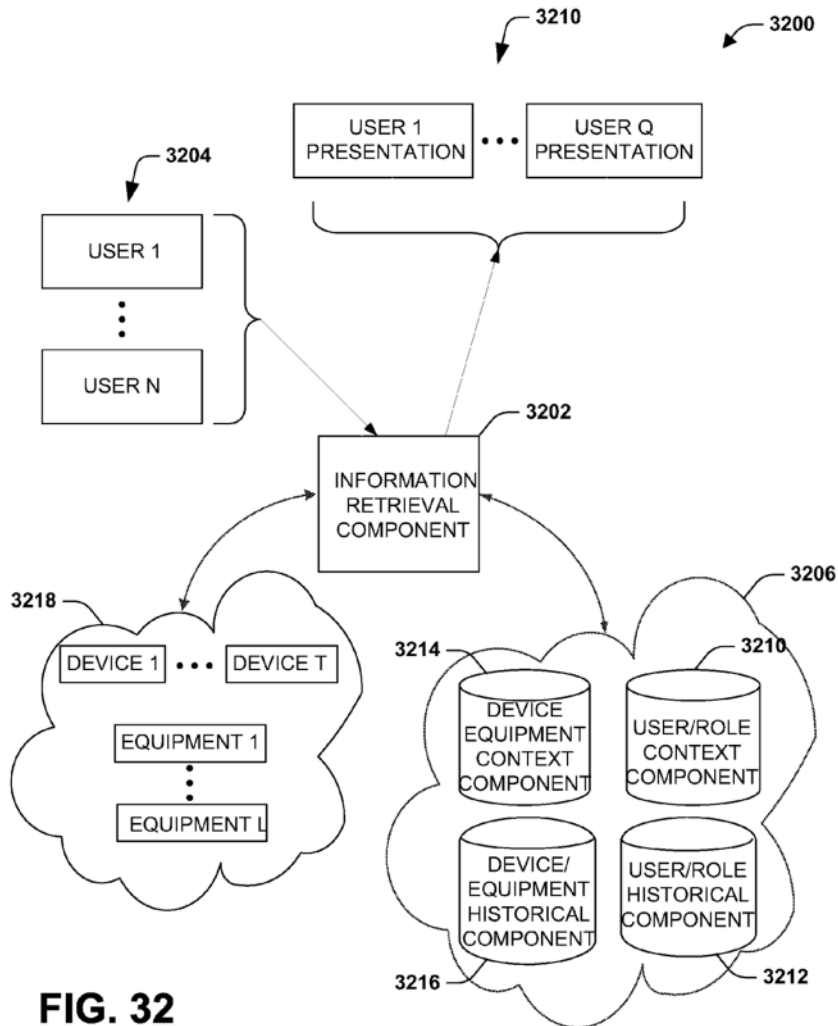


FIG. 32

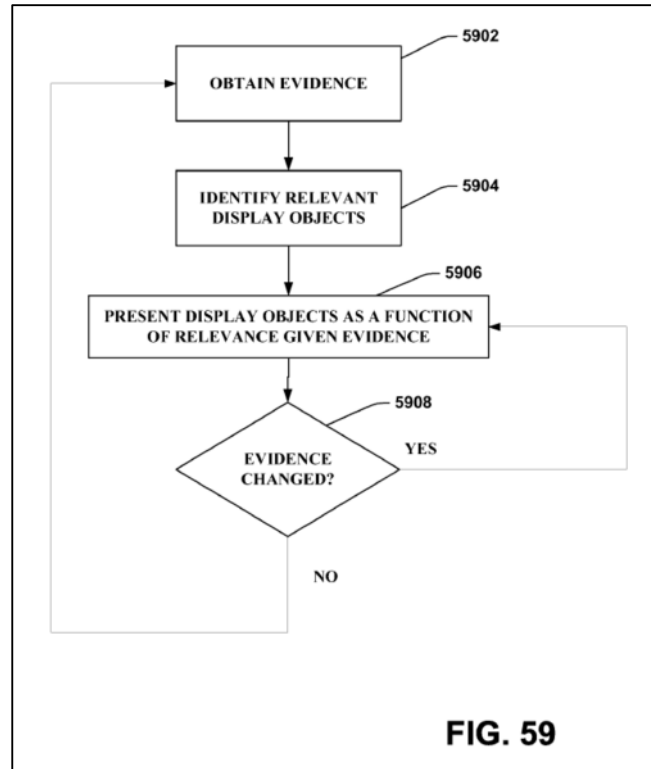
Thus, for example, “if an operator is working in the bottling area of a brewery, system 3200 can automatically present that operator with information about the *current operational status of the devices and/or equipment* [i.e., device condition] *located in the area* [i.e., device identifier] in which the operator is located”; or “if a maintenance engineer is currently working in the same area, the system 3200 can present that user with information about *the maintenance status of the devices and/or*

equipment [*i.e.*, device condition] located in that area [*i.e.*, device identifier] at substantially the same time....” *Id.*, 22:17-31.

Baier’s visualization system also determines the *communication methods based on the device identifier and device condition*, in two ways. Ex[1002], ¶¶120-121. First, the mapping of a particular device/condition to a user’s identity (communication destination) also determines a communication protocol—*e.g.*, a particular “requirement[] of communication” for that user. Ex[1007], 9:19-39, 26:8-44, FIGs.4, 32, 43, 7:48-55, 11:63-12:10, 30:23-26. For example, a user “[s]tate information” and a user’s “[p]rofile” can include “[r]ules” for customizing the visualization session in accordance with preferences and conditions. *Id.*, 9:19-39, 10:5-12. Thus, when a particular user destination is determined based on a device identifier and condition, that user’s profile will determine the protocol for communication (*e.g.*, text), such that the protocol of communication is determined based on the device identifier and condition. *See* Ex[1007], 7:56-61 (describing different user devices), 10:5-45 (describing that the system tailors the communication to the user device based on that device’s capabilities).

Second, Baier also expressly discloses that, after receiving an alarm from a particular device, that “alarm data is reformatted so that it can be *delivered* in accordance with *nature of the alarm*....” Ex[1007], 11:40-12:10, FIG.6. “Thus, alarm data is analyzed and re-formatted so as to facilitate optimizing *delivery* of the

alarm information to a user and particular device being employed.” Id.; FIGs.5, 20, 10:5-45. Depending on the determined device state, the system may “transition a visualization session from the current set of resources to another set of resources.” *Id.*, 9:19-55, 26:8-44. For example, Baier discloses that the *resolution* and *size* of the communicated images are determined based on the particular device and condition. *E.g., id.*, 30:40-54. FIG.59 (below) illustrates an example: here, the system receives “evidence”—such as “device state” and “device context,” and varies “resolution” as a function of the evidence. *Id.*, 31:36-52, 7:25-38. For example, if a “motor is malfunction[ing]” the “motor” display object may be sent with a different position and resolution. *Id.*, 31:4-52. Changing a position and resolution of an image constitutes changing its method of communication. Ex[1002] ¶121 (lower resolution images require less bandwidth and have different communication constraints).



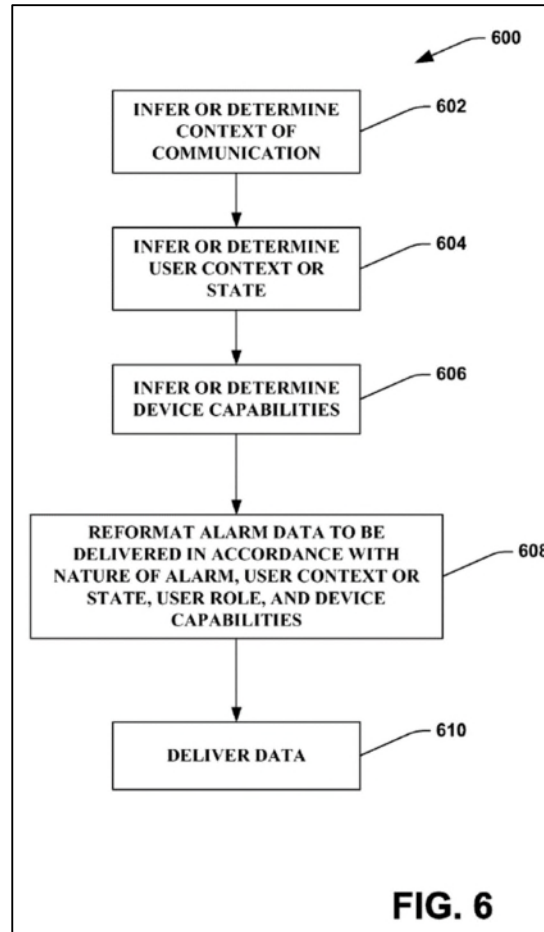
To the extent Patent Owner argues that Baier does not expressly disclose determining a communication method based on a device identifier and device condition, this limitation would have been obvious. Ex[1002] ¶122. Baier expressly discloses that its visualization system can communicate with user devices in a variety of protocols (text, email, etc.). Ex[1007], 8:62-9:39, 11:63-12:10, 30:23-26. One obvious way to implement this functionality is to determine the specific protocol based on the alarming device identity and condition. Ex[1002] ¶122. For example, if a device at a particular location has an emergency alarm that must immediately be flagged for a maintenance engineer, the system determines that the engineer should be notified via text for optimal, timely delivery. Ex[1007], 11:63-12:10 (formatting alarm data as a text); Ex[1002] ¶122. Any modifications necessary to implement

this functionality would have been straightforward for a POSITA, as Baier already discloses user profiles that could store preferred communication protocols for particular devices and conditions as well as AI or rules that can infer when to “transition[] communications sessions” based on the context of a device condition. Ex[1007], 8:62-9:55. A POSITA could have used the same components in the same way as disclosed in Baier, with a reasonable expectation of success. Ex[1002], ¶122.

5. 1[c-2]

Baier discloses “*dispatching the enhanced information [e.g., delivering the base presentation and graphical elements] to the one or more communication destinations using the one or more communication methods [e.g., destinations and methods determined by the visualization system].*” Ex[1002], ¶¶123-126.

As shown in block 610 of FIG.6 (below), Baier’s visualization system “deliver[s]” the retrieved and reformatted enhanced information (base presentation and graphical elements) to the user’s rendering device. Ex[1007], FIG.6; *id.*, 10:5-45, 7:38-43, 24:35-40, 4:35-37, 7:56-67; Ex[1002], ¶124.



Baier’s visualization system delivers the information using the determined communication device and method “without prompting or requesting such interest information from the user(s)” based on matching the location and status of device/equipment/system being monitored to the user. *Id.*, 19:57-65, 20:6-12, 21:4-13. Further, “alarm data is analyzed and re-formatted so as to facilitate optimizing *delivery of the alarm information to a user and particular device being employed.*” *Id.*, 11:61-63, FIGs.5-6, 20, 10:5-45. “Thus, the user is automatically provided a rich set of information related to their current task/situation.” Ex[1007], 2:40-44; Ex[1002], ¶125.

To the extent Patent Owner argues that Baier does not expressly disclose dispatching the enhanced information using the determined communication method, this limitation would have been obvious for the same reasons described for limitation 1[c-1]. Ex[1002], ¶126.

6. 1[d-1]

Baier discloses “*retrieving enhanced information based on the device identifier and the device condition comprises retrieving images based on the device identifier and the device condition.*” For the same reasons stated for limitation 1[b], Baier discloses limitation 1[d-1] because the enhanced information includes “images” such as a “base presentation” and other graphical elements. §IX.A.3; Ex[1002], ¶127. Moreover, the images in Baier comprise all the members of the claimed group, as addressed below.

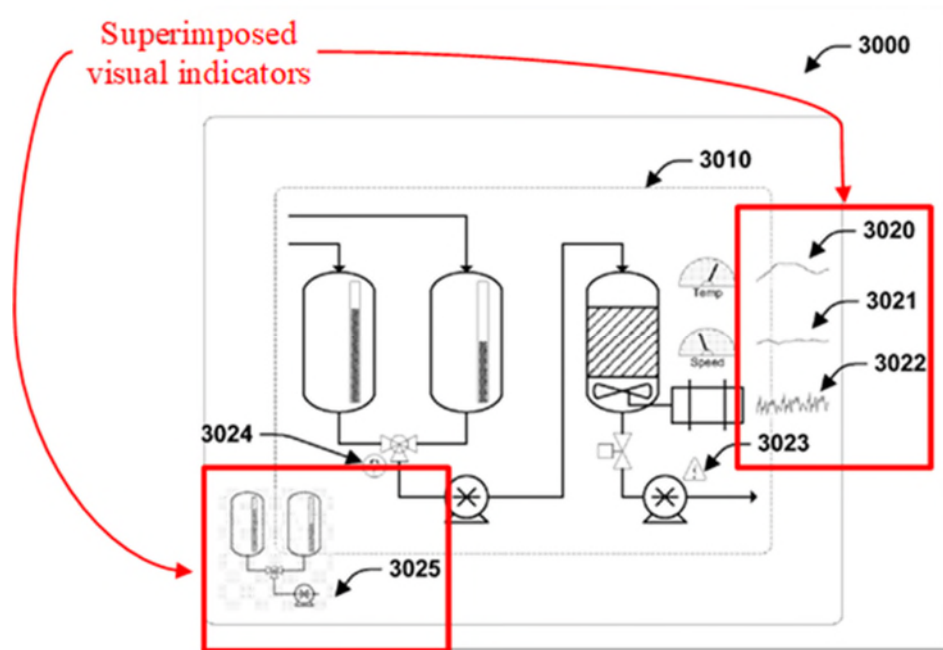
7. 1[d-2]

Baier discloses that the retrieved enhanced information includes “*superimposed visual indicators.*”

For example, Baier discloses “[v]arious display items can be dynamically superimposed on the base presentation component.” Ex[1007], 4:27-30, 13:59-61; Ex[1002], ¶129. The superimposed information is “situation-specific” based on the user’s interest and displayed on “the user’s current view of the automation control

system ('base presentation')." Ex[1007], 2:19-28, 8:12-36, 20:47-56; 20:32-39, 20:60-21:3, 24:64-25:24; Ex[1002], ¶129.

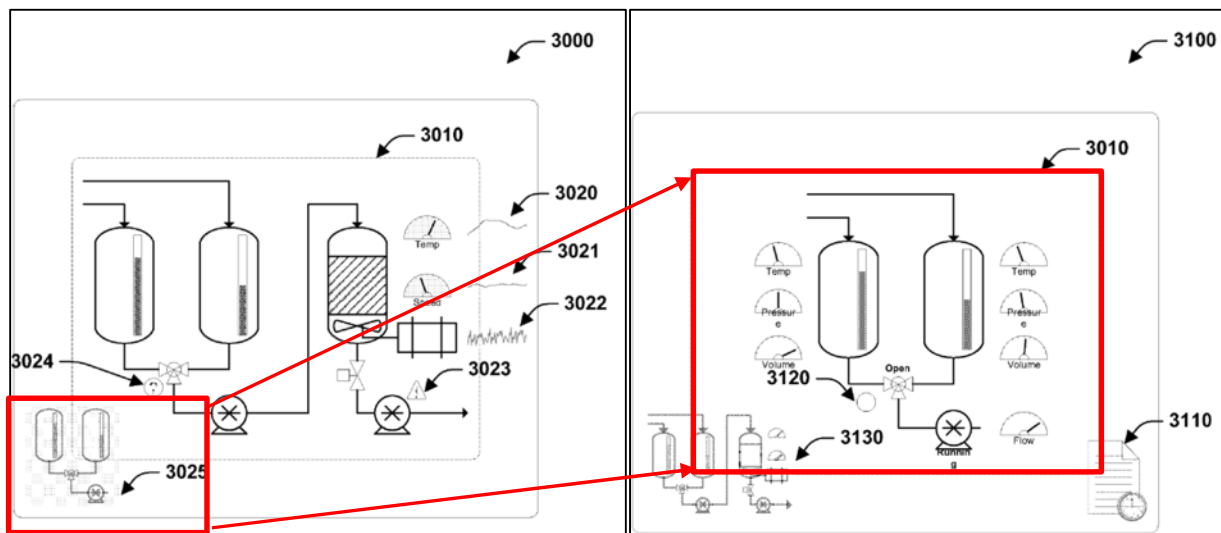
For example, FIG.30 (below) shows "[i]tems 3020, 3021, 3022, and 3025" "superimposed on the display" formatted so as not to "obscure information provided by the base presentation 3010," and "items 3023 and 3024 are superimposed entirely over base presentation 3010." Ex[1007], 20:49-56; FIGs.30-31, 33-34; 20:32-39, 20:60-21:3; Ex[1002], ¶130.



8. 1[d-3]

Baier discloses that the retrieved enhanced information includes "*hierarchically organized graphical images*," including "graphical images arranged relative to one another and/or accessible through one another." Ex[1001], 5:39-41; §VII; Ex[1002], ¶¶131-132.

In *Baier*, graphical images are accessible through each other for “quick[] access[] [to] additional information” by “drilling down into a subset of data.” Ex[1007], 22:65-23:1, 22:46-52; Ex[1002], ¶132. For example, *Baier* discloses that “[a] user can interact with any of the display objects which may cause the display to change,” *e.g.*, clicking “item 3025” in FIG.30 results in “display 3100 of FIG.31,” which shows “the selected information and automatically superimposes new, situation-specific information.” Ex[1007], 20:57-21:3, FIGs.30-31 (annotated below); Ex[1002], ¶132. *Baier* also generally discloses that “as a user selects, or hovers over a particular view” a display object corresponding to that view is “displayed in greater detail.” Ex[1007], 22:35-37, 8:40-52, 25:25-37.



9. 1[d-4]

In the ADT Matter, the court construed “vector-based graphical images” to mean “images that include one or more vectors,” rejecting ADT’s proposed construction of “vector image files.” §VII. Under the court’s construction, *Baier*

discloses “vector-based graphical images.” Under ADT’s proposed construction, Baier in view of Callaghan renders this limitation obvious.

(i) Baier alone

Baier discloses images that include one or more vectors, when zooming in on/out of and panning across an image. Ex[1002], ¶¶134-138.

For example, in Baier, “as a user zooms in on an area of an image that is pixel-mapped to a higher-resolution version thereof, data corresponding to the area under focus is streamed to the display area coincident with respect [to] pixels mapped thereto and resolution of the image area can be augmented, preserved, or enhanced.” Ex[1007], 15:45-16:5, FIG.16. “Accordingly, as a user zooms in on a particular region of the image, instead of the image becoming grainy, or blurry, the image maintains or increases resolution as a result of image data being streamed to the user to supplement the region of interest with more image data.” *Id.*, 16:5-10.

To implement this feature, Baier discloses a reference component 1602 that “determines or infers focus of attention of the user, or level and rate of zoom into or out of a display area” and generates “reference information,” and a resolution component 1604 that determines additional image data needed to “increase resolution of the area of interest.” Ex[1007], 16:11-21. “[D]ata is streamed to the user as a function of zoom or pan level,” for example “to augment, preserve, or increase resolution of an area of interest.” Ex[1007], 16:61-67, 17:13-21.

While Baier does not use the term “vector,” the process of generating “reference information” determines a vector—*i.e.*, a quantity with a magnitude and direction. Ex[1002], ¶137. Baier’s system determines the level (magnitude) of “zooming *in or out*” or “panning *across*” (direction) input by a user and then streams images using this vector to preserve image resolution. Ex[1007], 15:45-47, 16:61-67, 17:13-21; Ex[1002], ¶137. Notably, the functionality of magnifying an image while preserving image resolution is how the ’817 patent describes “vector-based graphical images.” Ex[1001], 5:58-59 (“vector-based graphical images” “allow[] magnification without degradation”); Ex[1002], ¶137.

(ii) Baier in view of Callaghan

Baier in view of Callaghan renders this limitation obvious under any construction. Ex[1002], ¶¶139-147.

Callaghan discloses using *vector-based graphical images* including vector image files, such as a “scalable vector graphics” (SVG) file. Ex[1008], [0009]. SVG files are relatively small-sized and allow magnification without degradation and are often used for displaying geometric, non-photographic information. Ex[1002], ¶140. For example, Callaghan describes using SVG files in an industrial environment to “represent a portion of a device” such that a “user can interact with the graphical representation” of the device to “monitor a device’s performance.” Ex[1008], [0009]-[0010]. When a user wishes to view a particular device, the user can

download the SVG file for display. Ex[1008], [0013]. Callaghan’s system “can be exploited within an industrial setting, wherein a device’s faceplate can be represented within an SVG file.” Ex[1008], [0029]. Because SVG files are only retrieved when necessary and are small-sized and can be magnified, Callaghan reduces storage and bandwidth consumption while allowing a user to zoom in on particular images. Ex[1008], [0030]; Ex[1002], ¶140.

A POSITA would have been motivated to implement Baier’s visualization system using the SVG files described in Callaghan. Ex[1002], ¶141. Baier and Callaghan are both assigned to Rockwell Automation Systems, and POSITAs would naturally have looked to references assigned to the same entity when considering modifications. Ex[1002], ¶141; Ex[1007]; Ex[1032]. Baier and Callaghan are also in the same general field, *e.g.*, industrial control systems, and are both geared towards enabling a user to “interact with industrial control systems” via a remote graphical interface. *E.g.*, Ex[1007], 1:36-41, 24:64-25:2; Ex[1008], [0009], [0013]; Ex[1002], ¶141; *e.g.*, *Tyco Healthcare Grp. LP v. Ethicon Endo-Surgery, Inc.*, 774 F.3d 968, 978 (Fed. Cir. 2014) (finding motivation to combine references in a “common field of endeavor”).

Baier and Callaghan also both expressly acknowledge that increasing resolution of graphical images—for example, when a user “zooms in”—requires a balance of “system resources,” including “processing resources” and “bandwidth”

and must “facilitate system speed or responsiveness.” Ex[1007], 15:47-53; Ex[1008], [0030]; Ex[1002], ¶142. Baier achieves these goals by streaming additional pixel data over a network to the display area “as a user zooms in” and thus “providing high-resolution images while judiciously utilizing system resources.” Ex[1007], 15:45-16:10, FIGs.16, 19. Callaghan’s SVG files also meet the same aims and “reduc[e] overhead and bandwidth requirements” and “render[] graphics that are resolution independent and searchable.” Ex[1008], [0010], [0009], [0024], FIG.6; Ex[1002], ¶142.

Thus, both solve the problems of bandwidth and memory usage without compromising functionality, and a POSITA would have been motivated to integrate Callaghan’s SVG file into Baier’s system when particular user devices/graphics are well suited for SVG files. Ex[1002], ¶143. Callaghan’s SVG files further reduce bandwidth consumption and would have been an obvious design choice in any bandwidth-limited environment. *Id.* Such a bespoke solution is accounted for in Baier’s system, which generates customized and tailored visualizations based on a variety of factors, including user device capabilities. *Id.*; Ex[1007], 10:29-32, 10:46-61; *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007).

Moreover, POSITA would have understood that using the SVG file of Callaghan in Baier’s system would have been a simple substitution with predictable results and a reasonable expectation of success. Ex[1002], ¶144. The images in

Baier are suitable for representation with SVG files. For example, FIGs.21-22 of Baier show high level depictions of equipment drawn in line segments, rather than photographs, and are thus well-suited for SVG files. *Id.* Moreover, although Baier describes using additional pixel data to address the resolution problem, it is not limited to only that solution. *Id.* Baier describes using “*substantially any type of application*” for displaying images to a user. Ex[1007], 5:57-66. An SVG file could have easily been used in Baier’s architecture. For example, Baier’s system could start with “[s]parse images,” as disclosed (Ex[1007], 15:58-59), but if reference component 1602 determines that a user should focus on a particular device because it has malfunctioned or entered a particular state, instead of determining additional pixels to stream to the user, the resolution component 1604 could identify an SVG file for the device. Ex[1008], [0029] (each device has an SVG file); Ex[1002], ¶146. The SVG file could then be “streamed” to the user to “augment, preserve, or increase resolution of an area of interest” (Ex[1007], 16:65-67)—as Callaghan describes. Ex[1008], [0029]. Ex[1002], ¶146.

B. Dependent Claims

1. Claim 2

Baier discloses “*receiving one or more signals containing a device identifier for a smoke detector, a pull station, a security detector, a carbon monoxide detector, and a check-in monitor from one or more remote alarm monitoring systems.*”

In the ADT Matter, the court rejected ADT’s argument that this limitation requires receiving signals from all five recited device types. Ex[1006]. A proper construction, however, requires receiving signals from each of the recited devices. The claim’s conjunctive format (“receiving *one or more signals* containing a device identifier...*and* a check-in monitor”) invokes a presumption that the phrase “one or more of” “modifies each member of the list, i.e., each category of the list.” *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 886-887 (Fed. Cir. 2004). Nothing in the intrinsic record rebuts the presumption. To the contrary, the PO disclaimed an “or” construction during prosecution when it accepted the Examiner’s Amendment striking “or” from the claims. Ex[1003], 26-27.

Under the construction in the ADT Matter, Baier anticipates the claim. For the reasons described in 1[a], Baier discloses a visualization system receiving signals from an automated device containing a device identifier and device condition. §IX.A.2. Baier discloses, or at least renders obvious, that the device identifier is for a *security detector* (e.g., detecting “alerts, emergencies, security, authentication”) or a *check-in monitor* (e.g., “inventory” systems, using RFID and other metrics to monitor access to a machine). Ex[1007], 10:46-61, 24:23-26, 12:11-24; Ex[1002], ¶149.

Baier also renders obvious the other recited device types, a *smoke detector*, *pull station*, and *carbon monoxide detector*. For example, Baier discloses

monitoring “temperature” and dangerous “health[]” of industrial equipment, that can pose risks of smoke, fire, and carbon monoxide emissions. *E.g.*, Ex[1007], 7:36-38, FIGs.30-31 (temperature), 22-21, 45-53, 17:22-24. All these recited devices were also well known in the art. Ex[1002], ¶150. Moreover, Baier’s system is intentionally customizable (*e.g.*, Ex[1007], 29:22-40) and implementing Baier with the recited devices would have involved simply using a known device in its ordinary manner with predictable results and a reasonable expectation of success. Ex[1002], ¶150.

2. Claim 3

Baier discloses “*receiving one or more signals containing a device condition of normal, fault, and supervisory from one or more remote alarm monitoring systems.*” For the reasons described in 1[a], Baier discloses a visualization system receiving signals from an automated device containing a device identifier and device condition. §IX.A.2. Baier further discloses that received device conditions can be normal (*e.g.*, “healthy”), fault (*e.g.*, “faulty”), and supervisory (*e.g.*, “on/off”). Ex[1007], 7:36-38; Ex[1002], ¶151.

3. Claim 4

Baier discloses “*retrieving enhanced information including one or more sounds based on the device identifier and the device condition.*” For the reasons described in 1[b], Baier discloses retrieving enhanced information based on the

device identifier and the device condition. §IX.A.3. Baier further discloses that the retrieved enhanced information can include *sound*: “data can be presented as...*audio* and video.” Ex[1007], 7:59-63, 5:66–6:4, 30:64-67; Ex[1002], ¶152.

4. Claim 5

Baier discloses “*retrieving enhanced information including one or more sounds organized on one or more graphical images based on the device identifier and the device condition.*” Baier discloses retrieving sounds based on the device identifier and the device condition. §IX.B.3 (claim 4). Baier also discloses organizing sounds on graphical images: “a display having one or more display objects...including such aspects as...*sounds* to facilitate operations with the interfaces.” Ex[1007], 5:66–6:4. These sounds “may be used to indicate proximal relationships between object thumbnails, such as when an object thumbnail being ‘moved’ is close to a preexisting cluster of object thumbnails.” Ex[1007], 30:64-67, 7:59-63; Ex[1002], ¶153.

5. Claim 6

Baier and Callaghan each disclose “*retrieving enhanced information including one or more communication links based on the device identifier and the device condition.*”

For the reasons described in 1[b], Baier discloses retrieving enhanced information based on the device identifier and the device condition. §IX.A.3. Baier

further describes that information such as “*URLs*” can be included with the enhanced information “to enhance the visualization experience....” Ex[1007], 17:47-52; *id.*, 30:23-26, FIGs.51-52. A URL is a “communication link” as the term is used in the ’817 patent. Ex[1002], ¶155; Ex[1001], 7:10-12 (“communication link” is, *e.g.*, “an IP address”).

Further, Callaghan’s vector graphics “can include searchable graphics, text, labels, descriptions, etc., and *links to other information.*” Ex[1008], [0009], [0048], [0052], [0040] (“URLs and/or hyperlinks can be utilized to locate and/or specify locations of information...[which] can be launched from drop-down menus, shortcuts and/or buttons.”); Ex[1002], ¶156. As described in §IX.A.9.ii, it would have been obvious to combine Callaghan’s vector graphics files with Baier.

6. Claim 7

For the same reasons set forth for claim 6, Baier and Callaghan each disclose “*retrieving enhanced information including one or more communication links organized on one or more graphical images based on the device identifier and the device condition.*” §IX.B.5; Ex[1007], 17:47-52; Ex[1008], [0040]; Ex[1002], ¶157.

7. Claim 8

Baier and Callaghan each disclose “*retrieving enhanced information including written information based on the device identifier and the device condition.*” Ex[1002], ¶¶158-159. For the reasons described in 1[b], Baier retrieving

enhanced information based on the device identifier and the device condition. §IX.A.3. Baier further discloses that the enhanced information can include “alphanumeric characters.” Ex[1007], 7:61-62. Callaghan also discloses vector graphics “that can include...*text*.” Ex[1008], [0009]. As described in §IX.A.9.ii, it would have been obvious to combine Callaghan’s vector graphics files with Baier.

8. Claim 9

Baier discloses “*retrieving enhanced information including date/time information, account information, premises information, device information, condition information, support information, contact information, linked information, and instructional information based on the device identifier and device condition.*”

Baier discloses retrieving written information based on the device identifier and the device condition. §IX.B.7 (claim 8). In the ADT Matter, the court held that claim 9 only required disclosure of one type of the recited written information, but a proper construction requires disclosure of all types. Ex[1006]; §IX.B.1. Under either position, Baier discloses this claim.

As shown in exemplary visualizations below, Baier’s written information can include *premises* and *device information* (e.g., written descriptions of components of a specific “conveyor line, 4500,” Ex[1007], 29:41-45, FIG.46); *date/time information*, *condition information*, and *support information* (e.g., “usage profile graph 4800” associated with use of the conveyor line over time, *id.*, 29:46-48,

FIG.48); *account*, *contact information*, *instructional*, and *linked* information (e.g., workflow information such as “revenue” 5004 and “[o]rder” information 5006, *id.*, 29:50-61, FIG.50). *See also* Ex[1007], 30:23-26, FIG.52 (integrating “calendars or tasks” and “email[]” as additional date/time and contact information), 17:48-52 (e.g., “documents” and “URLs” can also be linked); Ex[1002], ¶162; *see also* Ex[1001], 9:1-3 (“instructional” information can be a “note” and “linked” information may include a URL or file attachment), 8:62-65 (“support” information includes “archival data”).

FIG.46

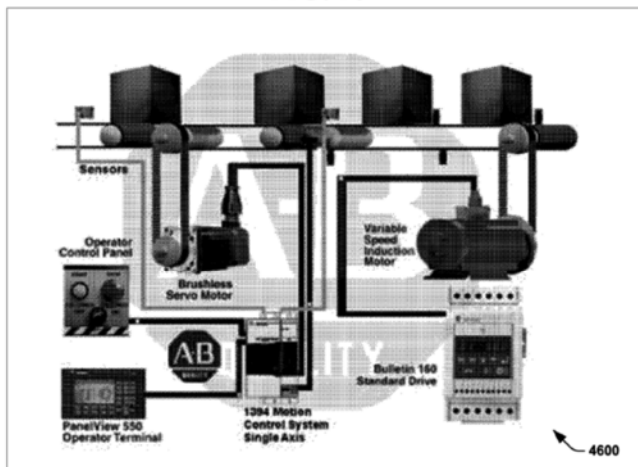


FIG.50

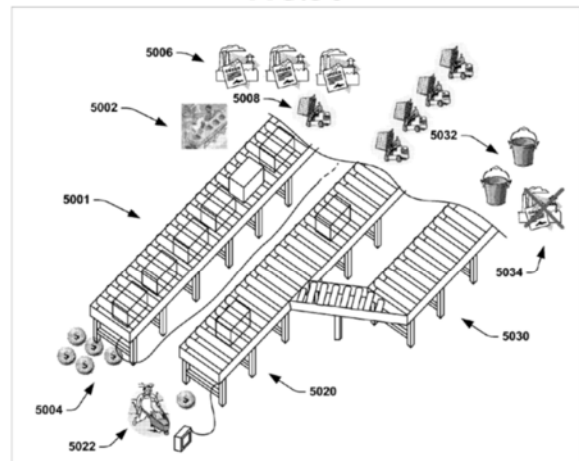
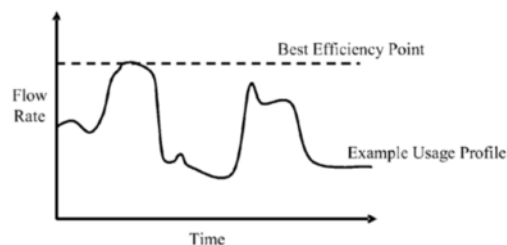


FIG.48

Usage Profile Over Time



To the extent PO argues any of the recited written information is not disclosed, each would have been obvious in view of Baier, as it would have required merely implementing known written information according to ordinary usage as needed for specific applications and could easily have been used by a POSITA in Baier's system. Ex[1002], ¶163.

9. Claim 10

Baier and Callaghan each disclose “*retrieving enhanced information including written information organized on one or more graphical images based on the device identifier and the device condition,*” for the same reasons set forth in claim 8. §IX.B.7; Ex[1002] ¶164.

10. Claim 11

Baier discloses “*determining one or more communication methods of email, text message, instant message, website link, phone, and mail based on the device identifier and the device condition.*”

For the reasons described in 1[c-1], Baier discloses determining communication methods based on the device identifier and the device condition. §IX.A.4. In the ADT Matter, the court found that claim 11 only required determining one type of the recited communication methods, but a proper construction requires determining all six types. Ex[1006]; §IX.B.1. Ex[1006]. Under either position, Baier discloses this claim.

Baier specifically discloses determining *email* (a form of *mail*), *text message*, and *phone* communication methods. Ex[1007], 30:23-26, 11:61-66, FIG.52; Ex[1002], ¶¶166-167. Baier also discloses use of *instant message* (“chat sessions”) and *website links* (“URLs”). Ex[1007], 12:5-10, 17:47-52; Ex[1002], ¶168.

To the extent PO argues any of the recited communication methods is not disclosed, each would have been obvious, as it would have required merely implementing known communication protocols, and could easily have been used by a POSITA in Baier’s system. Ex[1002], ¶169.

11. Claim 12

Baier discloses “*determining one or more device communication destinations of a personal computer, a phone, a mobile device, a display, and a custom device based on the device identifier and the device condition.*”

For the reasons described in 1[c-1], Baier discloses determining communication methods and communication destinations based on the device identifier and the device condition. §IX.A.4. In the ADT Matter, the court found that this claim only required determining one type of the recited communication destinations, but a proper construction requires determining each type. Ex[1006]; §IX.B.1. Under either position, Baier discloses the claim.

Baier specifically discloses destinations of a *cell phone, mobile device, display, personal computer*, any of which can be a *custom device*. Ex[1007], 11:61-12:10; Ex[1002], ¶171.

To the extent PO argues any of the recited communication destinations is not disclosed, each would have been obvious, as it would have required merely implementing known communication destinations and could easily have been used by a POSITA in Baier's system. Ex[1002], ¶172.

12. Claim 13

Baier discloses “*determining one or more entity communication destinations of an authority, a first responder, a service company, an owner, a manager, a staff, an occupant, a supplier, a customer, a neighbor, and a custom entity based on the device identifier and the device condition.*”

For the reasons described in 1[c-1], Baier discloses determining communication methods and communication destinations based on the device identifier and the device condition. §IX.A.4. In the ADT Matter, the court found that claim 13 required determining only one type of the recited destinations, but a proper construction requires determining each type. Ex[1006]; §IX.B.1. Under either position, Baier discloses the claim.

Baier discloses the recited destinations, as those terms are used in the '817 patent, including *security* (e.g., “security”) and *managers, staff, customers,*

suppliers, service company, owner (e.g., managers or owners with “business objective[s]” receive information for “reduc[ing] costs,” staff for “maintenance labor,” “customer demand,” suppliers and service companies for “power consumption”). Ex[1007], 10:54, 27:25-44, 22:17-31). Baier also discloses information for first responders and authorities (e.g., to address “emergencies” and “security,” id., 10:46-61) as well as users receiving information based on location, such as an occupant or neighbor as those terms are used in the ’817 patent (e.g., person at a location “in a production facility,” id., 11:7-13). See Ex[1001], 12:25-36; Ex[1002], ¶174.

Moreover, to the extent PO argues any of the recited destinations are not disclosed, each would have been obvious, as it would have required a POSITA to implement known communication destinations according to their established functions. Ex[1002], ¶175.

13. Claim 14

Baier discloses “*dispatching the enhanced information automatically without requiring operator intervention to the one or more communication destinations using the one or more communication methods.*” For example, “information of interest to one or more user can be identified without prompting or requesting such interest information from the user(s).” Ex[1007], 19:57-59; *id.*, 2:40-44, 10:5-12, 11:61-12:10, 30:23-26; Ex[1002], ¶176.

14. Claim 15

Baier discloses “*receiving enhanced information, one or more communication methods, and one or more communication destinations via a user interface that is remotely accessible.*”

For example, Baier discloses that the visualization system can “receive input from a user” that “correspond[s] to object identification, selection and/or interaction therewith.” Ex[1007], 7:3-43. For example, user input can “affect the display” and thus provide enhanced information. *Id.*, 7:18-20. As described for limitation 1[c-2], the user interface also receives enhanced information from Baier’s visualization system. A visualization system can also receive “preferences” from a user, which could include a desired communication destination and method. *Id.*, 8:62-9:3. The user can provide input remotely from a “mobile device” or “personal computer” with a “user interface.” Ex[1007], 7:56-67, 33:44-60; Ex[1002], ¶177.

To the extent PO argues Baier does not disclose receiving a communication destination or method via a user interface, Baier renders this claim obvious. Given Baier’s disclosure of received user preferences, it would have been a straightforward design choice to allow a user to indicate a preference of communication destination and method via a user interface. Any modifications to Baier’s systems would have been straightforward to a POSITA. Ex[1002], ¶178.

15. Claim 16

Baier discloses “*receiving one or more communication methods and one or more communication destinations from data of a personal device*” for the same reasons discussed for claim 15. §IX.B.14; Ex[1002], ¶179.

X. GROUND 4: OBVIOUSNESS IN VIEW OF CHILDERS COMBINED WITH BARKER

Childers in view of Barker (“Childers/Barker”) renders the Challenged Claims obvious.

A. Reasons to Combine Childers and Barker

Childers discloses a “system for remote monitoring of network appliances.” Ex[1009], [0017]. When an event occurs at a “network appliance,” Childers’ programmable central server receives a signal identifying the specific appliance and its condition. *Id.*, [0059]-[0061]. The central server also stores image and map configuration data, such as maps and icons, “associated with network appliances.” *Id.*, [0021]-[0022], [0060]. The central server then “transfer[s]” the data to the “client machine” for display. Ex[1009], [0021]-[0022], [0060], [0074], [0079], [0132]; Ex[1002], ¶181. Childers describes various types of client machines that may receive the data, including user PCs and handheld devices, and using various communication methods, such as “ethernet, wireless ethernet, TCP/IP, HTTP, FTP, SNMP, Blue Tooth” as well as “email.” Ex[1009], [0102], [0081], FIG.4, [0090]-[0098], [0056], [0141], [0072]; Ex[1002], ¶181. Childers also discloses “email lists,”

“alert lists,” “notification lists,” “responsibility lists,” and “communication protocols” to communicate the events. Ex[1009], [0141], [0142], FIGs.9A-9B, [0197]; Ex[1002], ¶181.

On its own, Childers thus generally discloses a programmable central server that receives a device identifier and condition as input and retrieves and sends enhanced information to a destination using a communication method as output. Ex[1002], ¶182. Childers, however, does not disclose details regarding how the central server processes the disclosed inputs to obtain the disclosed outputs. *Id.* A POSITA would have been motivated to fill in these details by implementing Childers’ central server using Barker’s software for processing device identifiers and conditions. *Id.*

Like Childers, Barker discloses a central server for receiving device identifiers and conditions from monitored devices. Ex[1010], [0012], [0015], [0031], [0039], [0042], [0045]; Ex[1002], ¶183. In addition, FIGs.5-6 of Barker disclose specific software “routine[s]” to execute on the central server for processing the device identifiers and conditions to obtain outputs (“Barker’s Rule-Based Software”). Ex[1010], [0050]-[0052]; Ex[1002], ¶183.

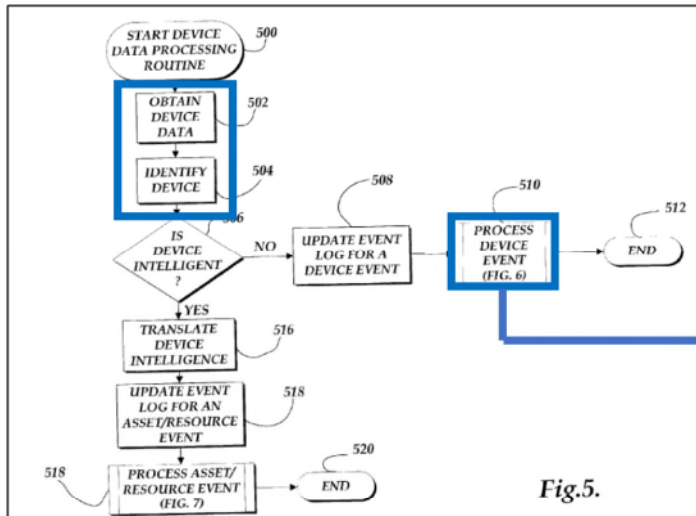


Fig.5.

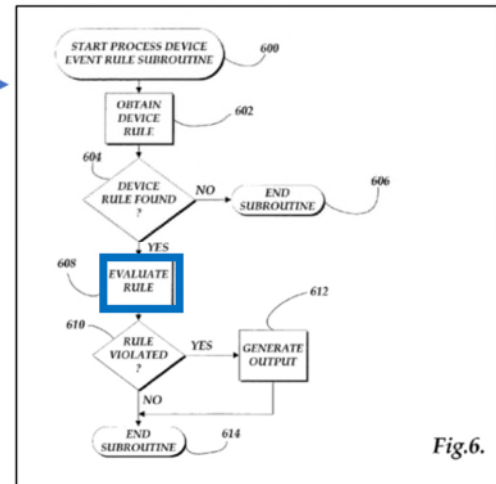


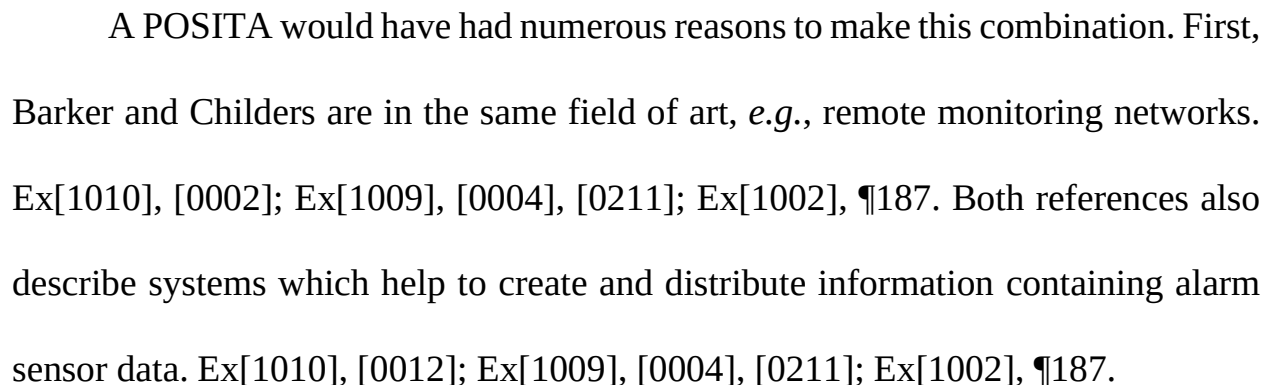
Fig.6.

In FIG.5, “the central server 56 obtains an input from a monitoring device,” shown as “device data” (block 502), including a device identifier, e.g., “a network address from which the input originated and which is assigned to the specific devices” or “other identification data that can be included with the data input,” and “event data” (such as an “on/off state”). Ex[1010], [0050], [0047], [0014]; Ex[1002], ¶184. After certain checks, in block 510, “the central server 56 processes the data” according to device rules. Ex[1010], [0051], [0015], [0052]; Ex[1002], ¶184; *id.*, FIG.6 (processing “event data”). “Based on an evaluation of the rules, the central server generates outputs in the form of communication to one or more authorized users via a variety of communication mediums and devices....” Ex[1010], [0013], [0049]; Ex[1002], ¶184. Specifically, if a rule is violated, “instructions” are

provided including a “list of the authorized users to notify in the event of a rule violation and a hierarchy of which communication medium and devices should be utilized to contact each authorized user.” Ex[1010], [0054]; Ex[1002], ¶184.

A POSITA would have understood that implementing Barker’s Rule-Based Software in Childers’ central server would have been a simple, predictable combination reasonably expected to succeed. Ex[1002], ¶185. Both Childers and Barker disclose receiving and processing a device identifier and a device condition and generating output to dispatch to clients. *Id.* Barker simply provides implementation details for the same architecture already disclosed in Childers, and no design changes thereto would have been required. *Id.* Indeed, Barker’s Rule-Based Software for processing the inputs to generate the output involves execution of simple software subroutines on a generic server with a processing unit storing computer-executable instructions, just as the central server is described in Childers. Ex[1010], [0041]-[0042], [0047]; Ex[1009], [0105]-[0113]; Ex[1002], ¶185.

Accordingly, as illustrated below, a POSITA could easily have plugged Barker’s Rule-Based Software into Childers’ central server using the “Java code” or “C++ code” already disclosed in Childers for programming the server, and any modifications would have been straightforward to and easily implemented by a POSITA. . Ex[1009], [0110]; Ex[1002], ¶186. Regarding Childers’ inputs, the same device identifier and condition could be received in the same way and be used as



Second, Childers and Barker are directed to similar problems; each address the problems and expense of relying on human security personnel to monitor devices on premises. Ex[1009], [0007]-[0013]; Ex[1010], [0007]; Ex[1002], ¶188. Each also describes similar problems in accessing, organizing, and presenting information for a user. Ex[1009], [0015]-[0016]; Ex[1010], [0012]; Ex[1002], ¶188.

Third, Childers and Barker solve these problems in similar ways. Both references disclose (1) receiving device identifiers and conditions over a network, and (2) automatically determining an output to indicate a device event and a particular communication destination and method by which to dispatch the output. Ex[1002], ¶189. Barker provides additional details of an algorithm for implementing this process that would have predictably worked in Childers' architecture providing the same benefits thereto as disclosed in Barker. *Id.*

Therefore, a POSITA would be both motivated, and able, to combine Childers and Barker with an expectation of success.

B. Independent Claim 1

1. 1[pre]

To the extent the preamble is limiting, Childers/Barker discloses a method. *E.g.*, Ex[1009], [0004] (method of monitoring network enabled sensor equipment); Ex[1002], ¶191.

2. 1[a]

Childers/Barker discloses “*receiving one or more signals* [e.g., at Childers’ central server implementing Barker’s Rule-Based Software] *containing a device identifier and a device condition* [e.g., Childers’ network appliance identifier and an alarm] *from one or more remote alarm monitoring systems* [e.g., from one or more connected network appliances in Childers’ system].” Ex[1002], ¶¶192-197.

Childers discloses a central server that *receives signals* from remote network appliances in a *remote alarm monitoring system*. Ex[1009], [0211], [0060]; Ex[1002], ¶193. The network appliances “periodically deliver their sensor data,...‘pushing’ the data to the server.” Ex[1009], [0061]. The network appliances, which are *remote* from the server, send information using digital signals over a network. Ex[1009], [0059].

The communication from the network appliance includes a signal that contains a *device identifier* for the network appliance. For example, Childers discloses that the “network appliances 16 may...communicate with the server 14 through hypertext transfer protocols” (HTTP) using a “TCP/IP protocol communications method” or could even send “an email message.” Ex[1009], [0059], [0123]; Ex[1002], ¶194. For HTTP, Childers also discloses that the system “support[s] ‘discovering’ appliances by handling Appliance-initiated HTTP Posts.” Ex[1009], [0066]; Ex[1002], ¶194.

Whether the network appliance issues an HTTP Post request to the server or sends an email to the server—either method includes an identifier for the appliance so that the server can respond to the request. Ex[1009], [0123], [0159]-[0197] (disclosing use of HTTP 1.1 requests from a network appliance to server). Specifically, HTTP communications that use TCP/IP provide unique addresses for each appliance. Ex[1024], 11 (HTTP is carried over TCP/IP); Ex[1021] §2.7 (TCP/IP provides unique addresses within each TCP by concatenating address identifying the TCP with a port identifier to create a socket which will be unique throughout all networks connected together), §3.1 (TCP layer header contains source port in signal); Ex[1019], §3.1 (IP layer header contains source address in signal); Ex[1002], ¶195 & nn.10-11. Moreover, to the extent a network appliance has multiple sensors, Childers also discloses that the signal also identifies individual sensors. Ex[1000], [0203], FIG.14 (tracking sensors); Ex[1002], ¶195. Thus, in either case, the server can then alert a client machine that a particular device needs attention. Ex[1009], [0125], [0200]-[0201]; Ex[1002], ¶195.

The network appliance data received by the server in Childers also contains a *device condition*, e.g., “information relating to alarms and alerts.” Ex[1009], [0060], [0061]; Ex[1002], ¶196. For example, “[w]ith the communication, the network appliance may...indicate status,” such as “temperature, humidity, door sensors, alarms, power quality, motion detectors and cameras, among others.” Ex[1009],

[0059], [0123], [0125], [0138], [0197] (“Network appliance data...may be organized by...alarm state, and status....”).

As described in §X.A, any modification to implement the feature of receiving a device identifier and condition in the combination would have been straightforward to a POSITA because, for example, Barker’s software already is designed to receive the same type of device identifiers and conditions. Ex[1010], [0047], [0050] (input includes event data and device identifier including “network address”); Ex[1002], ¶197.

3. 1[b]

Childers/Barker discloses “*retrieving* [e.g., by Childers’ central server implementing Barker’s Rule-Based Software] *enhanced information* [e.g., Childers’ maps and icons] *based on the device identifier and the device condition* [e.g., a network appliance identifier and an alarm in Childers’ system].” Ex[1002], ¶¶198-200.

Childers’ central server *retrieves enhanced information*, including “image data” and “configuration data” such as a “map” or “plot” with superimposed “icons” representing physical locations and status of network appliances. Ex[1009], [0021]-[0022], [0060], [0074], [0084], FIG.5; Ex[1002], ¶199. Image and configuration data can be “stored on the server,” including in various databases. *Id.*, [0060], [0074], [0105]. The stored data is “associate[d]” with network appliances such that, if there

is an event associated with the network appliance, the data is retrieved from memory and “transferred” to the client machine for display. Ex[1009], [0021]-[0022], [0060], [0074]-[0075], [0079], [0132] (“The map or image may change in response to events associated with the network appliances.”). For example, icons may be arranged “according to type, location, alarm state, configuration, parameter value, or organization” and may “represent[] physical location, status, and function” of a network appliance.” *Id.*, [0100], [0021]; *id.*, [0100], [0128]-[0130] (describing display of map data); Ex[1002], ¶199.

Childers/Barker discloses that this enhanced information is retrieved based on the device identifier and the device condition. Barker’s Rule-Based Software specifically generates “one or more outputs” based on a device identifier and device condition. Ex[1010], [0015], [0047], [0049], [0050], [0052], [0054]; Ex[1002], ¶200. As described in §X.A, it would have been obvious to a POSITA to implement Barker’s Rule-Based Software in the central server of Childers to determine which specific enhanced information to retrieve and output when a specific device identifier and device condition is received as input. Ex[1002], ¶200. Under this combination, when Childers’ central server receives an alarm condition and device identifier, *e.g.*, via an HTTP communication, it uses Barker’s Rule-Based Software, which is already set up to process the network appliance’s “network address” and device state, to determine an output based on the alarm condition and device

identifier, specifically the particular enhanced information to dispatch. Ex[1002], ¶200; Ex[1010], [0047], [0050].

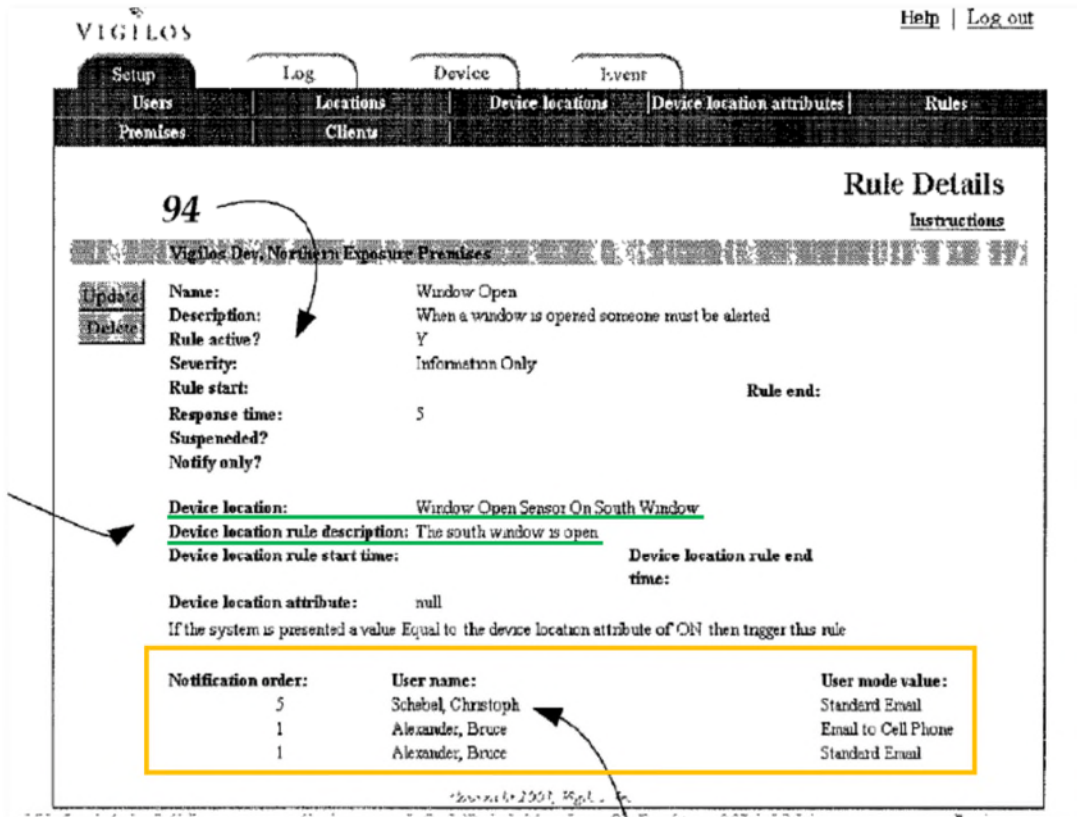
4. 1[c-1]

Childers/Barker discloses “*determining one or more communication methods and communication destinations* [e.g., Childers’ central server implementing Barker’s Rule-Based Software to determine a client device destination and method of communication] *based on the device identifier and the device condition* [e.g., based on a network appliance identifier and an alarm in Childers’ system].” Ex[1002], ¶¶201-205.

Childers discloses that its central server can communicate with client *destinations* of various types, including PCs and handheld devices, using different types of *communication methods*, such as “ethernet, wireless ethernet, TCP/IP, HTTP, FTP, SNMP, Blue Tooth” as well as “email.” Ex[1009], [0102]-[0105], [0081], FIG.4, [0090]-[0098], [0056], [0141], [0072]. Childers also describes that central server stores “email lists,” “alert lists,” “notification lists,” “responsibility lists,” and “communication protocols” that correspond to specific network appliances. Ex[1009], [0141]-[0142], FIGs.9A-9B. Network appliances can also be “organized” into groups based on “a list of users that have access to the group for security” or “by location, responsible party, organization, network appliance type, version, alarm state, and status among others.” Ex[1009], [0197], [0128].

Childers/Barker discloses that these communication destinations and methods can be determined based on the received device identifier and device condition. Specifically, under this combination, when Childers' central server receives an alarm condition and device identifier, *e.g.*, via an HTTP communication, it uses Barker's Rule-Based Software, which is already set up to process the network appliance's "network address" and device state, to "evaluat[e]" a rule based on the identified device and condition to determine a communication destination and method. Ex[1010], [0013]-[0014], [0047]-[0053], FIGs.5-6; Ex[1002], ¶203. For example, "[e]ach authorized user has a preference of notification means....," such as "electronic messaging" and "short message services," and "the rules may be in the form of logical if/then statements implementing an iterative hierarchy for establishing communication with an authorized user." *Id.* [0045], [0054], [0066]. If a rule is violated, "instructions" are provided including a "list of the authorized users to notify...and a hierarchy of which communication medium and devices should be utilized to contact each authorized user." Ex[1010], [0054], [0045]-[0046]; Ex[1002], ¶203.

For example, FIG.8 of Barker (below) illustrates a rule (green) for a window sensor device. If the server receives a signal that the window is open, then, based on that information, the server will notify a particular user via email (orange). Ex[1010], [0067].



Thus, the communication method and destination in Barker are based on the alarming device’s identifier and condition, as encoded in Barker’s rules associated with that device. Ex[1002], ¶205. As described in §X.A, it would have been obvious to a POSITA to implement Barker’s Rule-Based Software in the central server of Childers to determine the specific communication destination and method for a received device identifier and device condition. *Id.*

5. 1[c-2]

Childers/Barker disclose “dispatching the enhanced information [e.g., delivering Childers’ maps and icons] to the one or more communication destinations using the one or more communication methods [e.g., destinations and methods

determined by Childers' central server implementing Barker's Rule-Based Software]." Ex[1002], ¶¶206-207.

As described in §X.A and limitations 1[b] and 1[c-1], it would have been obvious to implement Barker's Rule-Based Software in Childers' central server to retrieve enhanced information and generate an output and a destination and communication method for the output. Childers also discloses that its central server dispatches that output, for example, the central server pushes the image data to the client machine—*e.g.*, "[t]he client may wait and acquire data updates as they occur." Ex[1009], [0087], [0021], [0075], [0078]-[0079]; Ex[1010], [0054], [0066]; Ex[1002], ¶207.

6. 1[d-1]

Childers/Barker discloses *"retrieving enhanced information based on the device identifier and the device condition comprises retrieving images based on the device identifier and the device condition."* For the same reasons stated for limitations 1[b], Childers/Barker discloses limitation 1[d-1] because the enhanced information includes images such as a map and icons. §X.B.3. Moreover, Childers describes all the members of the claimed group, as addressed below. Ex[1002], ¶208. As described in §X.A, the Childers/Barker combination would not have required modifying any of Childers' enhanced information output.

7. 1[d-2]

Under Childers/Barker, the retrieved enhanced information includes Childers' “*superimposed visual indicators.*”

Childers discloses storing and dispatching a map with icons “superimposed” on the map. Ex[1009], [0100]. “[T]he icons may be arranged according to type, location, alarm state, configuration....” Ex[1009], [0100], [0021], [0128], [0132]; Ex[1002], ¶210. In FIG.8C (below), “the background may depict a map of a physical location over which icons are displayed representing the physical location of an associated network appliance.” Ex[1009], [0024], [0132], FIGs.8A-8B, 8D; Ex[1002], ¶210.

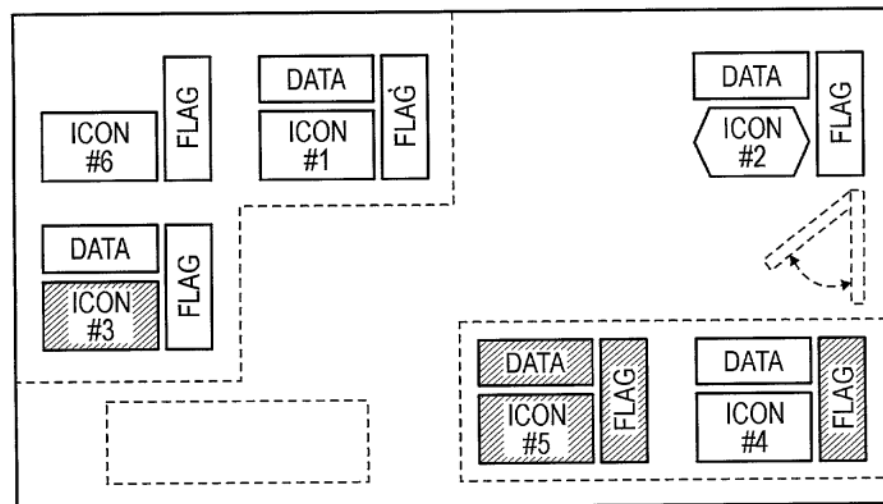


FIG. 8C

8. 1[d-3]

Childers/Barker also discloses that the retrieved enhanced information includes “*hierarchically organized graphical images,*” including “graphical images

arranged relative to one another and/or accessible through one another.” Ex[1001], 5:39-41; Ex[1006]; Ex[1002], ¶¶211-212.

For example, Childers discloses that the “icons may link to present or historical values of the network appliances associated with the icons, and “*an action such as clicking an icon may initiate another display such as another map, table, or graph.*” Ex[1009], [0116], [0131] (“clicking on the icon may display another mapping, a data table, and an icon configuration”); Ex[1002], ¶212. Further, “[t]he icons may be arranged” relative to each other, for example, “in a manner indicative of physical location, type, capabilities, status, alarm state...” Ex[1009], [0116], [0121]; Ex[1002], ¶212.

9. 1[d-4]

In the ADT Matter, the court construed “vector-based graphical images” to mean “images that include one or more vectors,” rejecting ADT’s proposed construction of “vector image files.” §VII. Under either construction, Childers/Barker discloses “*vector-based graphical images.*”

For example, Childers discloses displaying a “map” on a client device that includes icons superimposed on a background image, where background image “may be a...*vector plot.*” Ex[1009], [0116]; Ex[1002], ¶214. A vector plot refers to a representation of an image using vectors, such as vector graphics stored in various known file formats, including, *e.g.*, an SVG file. Ex[1002], ¶214.

C. Dependent Claims

1. Claim 2

Childers/Barker discloses “*receiving one or more signals containing a device identifier for a smoke detector, a pull station, a security detector, a carbon monoxide detector, and a check-in monitor from one or more remote alarm monitoring systems.*”

In the ADT Matter, the Court found that this claim requires receiving a signal of just one of the recited device types, but a proper construction requires each specific device type. Ex[1006]; §IX.B.1. Under either position, Childers/Barker discloses the claim.

For the reasons described in 1[a], Childers/Barker discloses a central server receiving signals from network appliances containing a device identifier. §X.B.2. Childers discloses that the device identifier is at least for a *security detector* and a *pull station*, because the disclosed network appliances include door sensors, alarms, motion detector, etc., with the aim of “*maintain[ing] security.*” Ex[1009], [0012], [0059]; Ex[1001], FIG.10, 3:15; Ex[1002], ¶216.

Barker also expressly discloses *a smoke detector, a pull station, a carbon monoxide detector (e.g., “smoke, fire and carbon monoxide detectors”), a security detector (e.g., “door and window access detectors, glass break detectors, motion detectors...”)*, and a *check-in monitor (e.g., “fingerprint, facial, retinal, or other*

biometric identification devices,” or “conventional panic buttons,...[GPS] locators,...medical indicators,...”). Ex[1010], [0033]; Ex[1002], ¶217; Ex[1001], 3:44-46. It would have been obvious to implement signals from Barker’s different device types in Childers’ architecture because it would have required merely using a known device according to its ordinary usage in the existing Childers/Barker architecture. Ex[1002], ¶217.

2. Claim 3

Childers/Barker discloses “*receiving one or more signals containing a device condition of normal, fault, and supervisory from one or more remote alarm monitoring systems.*” For the reasons described in 1[a], Childers/Barker discloses a central server receiving signals from network appliances containing a device condition. §X.B.2. Childers specifically describes *normal* (e.g., “normal state”), *fault* (e.g., “environmental sensor alarms,” “motion alarm”), and *supervisory* (e.g., appliance is “offline” or “missing in action”). Ex[1009], [0138]-[0139], [0125], [0059]-[0061]; Ex[1002], ¶218.

3. Claim 4

Childers/Barker discloses “*retrieving enhanced information including one or more sounds based on the device identifier and the device condition.*”

For the reasons described in 1[b], Childers/Barker discloses retrieving enhanced information based on the device identifier and the device condition.

§X.B.3. While Childers does not expressly disclose enhanced information including sound, adding “sound” to Childers’ enhanced information would have been obvious. Ex[1002], ¶220. Audible alarms were well known in the art long before 2009. *Id.* Indeed, Barker discloses a central server transmitting a *sound* alert: “*sounding an audible alarm.*” Ex[1010], [0079], [0055]; cls.22, 43; Ex[1002], ¶220. It would have been obvious to implement Barker’s audible alarms with enhanced information of Childers, as it would have merely been a predictable variation of a known technique (audible alarms) applied to a known display (Childers’ map and icons) ready for improvement. Ex[1002], ¶220.

4. Claim 5

Childers/Barker discloses “*retrieving enhanced information including one or more sounds organized on one or more graphical images based on the device identifier and the device condition.*” Childers/Barker discloses retrieving sounds based on the device identifier and the device condition. §X.C.3 (claim 4). Childers’ enhanced information can also be linked to other enhanced information. Ex[1009], [0116], [0131]; Ex[1002], ¶221. In view of these disclosures, it would have been obvious to implement retrieving enhanced information with *sounds*, where the sounds are organized *on* the enhanced information, based on a device identifier and device condition. Ex[1002], ¶221. A POSITA could have easily implemented audible alarms as a result of clicking an icon, which would have been a predictable

variation of a known technique (audible alarms) applied to Childers’ map and icons.
Id.

5. Claim 6

Childers/Barker discloses “*retrieving enhanced information including one or more communication links based on the device identifier and the device condition.*”

For the reasons described in 1[b], Childers/Barker discloses retrieving enhanced information based on the device identifier and the device condition. §X.B.3. Childers’ central server also stores “[n]etwork appliance configuration data” including, *e.g.*, “contact data” and “email lists” and “alert lists.” Ex[1009], [0141]; Ex[1002], ¶222. Childers’ icons further “may be arranged in a manner indicative of...*responsible party.*” Ex[1009], [0116]. Contact data, email lists, alert lists, and responsible party information are *communication links* corresponding to a particular network appliance and alarm condition. Ex[1002], ¶222; Ex[1001], 7:10-12.

6. Claim 7

Childers/Barker discloses “*retrieving enhanced information including one or more communication links organized on one or more graphical images based on the device identifier and the device condition.*” Ex[1002], ¶223.

As described for claim 6, Childers/Barker disclose retrieving communication links based on a device identifier and condition. §X.C.5. Childers also discloses icons—graphical images—that “link to other images, displays, and data” such that

“clicking on the icon may display another mapping, a data table, and an icon configuration.” Ex[1009], [0131]. Childers also expressly discloses that the icons “may be arranged in a manner indicative of...*responsible party*.” Ex[1009], [0116]. Because the icons can link to other data *and* can indicate a responsible party, it would have been obvious to include links to a responsible party on an icon (graphical image). Ex[1009], [0116], [0121]; Ex[1002], ¶223. This would have merely involved a POSITA easily implementing functionality already disclosed in Childers in the manner disclosed. *Id.*

7. Claim 8

Childers/Barker disclose “*retrieving enhanced information including written information based on the device identifier and the device condition.*” Ex[1002], ¶224. For the reasons described in 1[b], Childers/Barker disclose retrieving enhanced information based on the device identifier and the device condition. §X.B.3. Childers further discloses that the enhanced information can include written information such as, *e.g.*, (1) “environmental sensor readings” “displayed on the map views as part of the icon”; (2) sensor values in the correct units; or (3) flags with labels. Ex[1009], [0134], [0130]; Ex[1002], ¶224.

8. Claim 9

Childers/Barker discloses “*retrieving enhanced information including date/time information, account information, premises information, device*

information, condition information, support information, contact information, linked information, and instructional information based on the device identifier and device condition.”

Childers/Barker discloses retrieving written information based on the device identifier and the device condition. §X.C.8 (claim 8). In the ADT Matter, the court held that this claim only required disclosure of one type of the recited written information, but a proper construction requires disclosure of all types. Ex[1006]; §IX.B.1. Under either position, Childers/Barker discloses this claim.

For example, Childers’ written information can include *account information* (e.g., “password and access data”), *contact information* (e.g., “contact data,” “email lists”), *condition information* (e.g., “threshold data”), and *instructional information* (e.g., “algorithms”). Ex[1009], [0141]; Ex[1002], ¶226; Ex[1001], 9:1-3 (“instructional” information can be a “note”). The table in FIG.13C (below) also lists *premises information* (e.g., “LOCATION”), *device information*, (e.g., “MODEL”) and can include *date/time* and *support information* (e.g., “historical data of events” including “time”), and *linked information* (e.g., “available images”). Ex[1009], [0201]-[0202]; *id.*, [0100] (data such as “type, location, alarm state, configuration, parameter value, or organization, among others” can be displayed as a table), [0142], FIGs.9A-9B, 13B; Ex[1001], 8:62-9:3; Ex[1002], ¶226. To the extent Patent Owner

argues any of the recited written information is not disclosed, each would also have been obvious in view of Childers. Ex[1002], ¶227.

	LOCATION	MODEL	VALUE #1	VALUE #2	STATUS
NETWORK APPLIANCE #1	A	100	AA	BA	OFF
NETWORK APPLIANCE #1	A	100	AB	BB	ON
NETWORK APPLIANCE #1	B	300	AC	BC	ON
NETWORK APPLIANCE #1	B	400	AD	BD	ON
NETWORK APPLIANCE #1	C	200	AE	BE	ON

FIG. 13C

9. Claim 10

Childers/Barker discloses “*retrieving enhanced information including written information organized on one or more graphical images based on the device identifier and the device condition,*” for the reasons described for claims 7-8. §X.C.6-7. It would have been obvious to organize written information on graphical images, such as icons, in Childers/Barker. Ex[1009], [0131], [0116], [0121]; Ex[1002], ¶228. This would have merely involved a predictable variation of the functionality already disclosed in Childers/Barker. Ex[1002], ¶228.

10. Claim 11

Childers/Barker discloses “*determining one or more communication methods of email, text message, instant message, website link, phone, and mail based on the device identifier and the device condition.*”

For the reasons described in 1[c-1], Childers/Barker discloses determining communication methods and communication destinations based on the device identifier and the device condition. §X.B.4. In the ADT Matter, the court found that this claim only required determining one type of the recited communication methods, but a proper construction requires determining all six types. Ex[1006]; §IX.B.1. Under either position, Childers/Barker discloses this claim.

Childers discloses determining methods such as a *website link* (e.g., “internet browsers,” Ex[1009], [0096]-[0097]) and *email* (a form of *mail*) (e.g., email lists, *id.*, [0141]). Ex[1002], ¶230.

Barker also expressly discloses communication via a *website link*, *email* (or *mail*), *text messages*, *instant messages*, and *phone communications*: “electronic messaging or Web access, via wireless transmissions utilizing the wireless application protocol, short message services, audio transmission.” Ex[1010], [0046]; Ex[1002], ¶231. It would have been obvious to implement Barker’s (or any recited) communication methods in Childers/Barker because it would have just required a POSITA to implement known communication protocols according to their established functions. Ex[1002], ¶231.

11. Claim 12

Childers/Barker discloses “*determining one or more device communication destinations of a personal computer, a phone, a mobile device, a display, and a custom device based on the device identifier and the device condition.*”

For the reasons described in 1[c-1], Childers/Barker discloses determining communication methods and communication destinations based on the device identifier and the device condition. §X.B.4. In the ADT Matter, the court found that this claim only required determining one type of the recited communication destinations, but a proper construction requires determining each type. Ex[1006]; §IX.B.1. Under either position, Childers/Barker discloses the claim.

Under Childers/Barker, destinations can be *any* device with a processor, network interface, and user interface, including “monitors, keyboards, wireless devices, handheld devices.” Ex[1009], [0090]-[0097]; Ex[1002], ¶233. To the extent PO argues any recited communication destination is not disclosed, Barker also expressly describes each of the recited devices: “personal computers, hand-held computing devices,...cellular or digital telephones,...,” each of which could be a “custom” device. Ex[1010], [0046]; Ex[1002], ¶234. It would have been obvious to implement Barker’s devices in the Childers/Barker architecture because it would have required communications with well-known devices according to their

established functions, and could easily have been implemented by a POSITA. Ex[1002], ¶234.

12. Claim 13

Childers/Barker discloses “*determining one or more entity communication destinations of an authority, a first responder, a service company, an owner, a manager, a staff, an occupant, a supplier, a customer, a neighbor, and a custom entity based on the device identifier and the device condition.*”

For the reasons described in 1[c-1], Childers/Barker discloses determining communication methods and destinations based on the device identifier and the device condition. §X.B.4. In the ADT Matter, the court found that claim 13 required determining only one type of the recited destinations, but a proper construction requires determining each type. Ex[1006]; §IX.B.1. Under either position, Childers/Barker discloses the claim.

Childers discloses that a communication destination can be any user, such as a “dedicated technician[.]” monitoring security/environmental conditions. Ex[1009], [0007]-[0013], [0128], [0061]; Ex[1002], ¶236. Depending on the type of alarm (environmental/security), the type of business (small/large or contractor/owner), or the technician’s seniority (manager/staff), it would have been obvious that these dedicated technicians could be *an authority, a first responder, a service company,*

an owner, a manager, a staff, a supplier, a customer, or a custom entity, at least as those terms are used in the '817 patent. Ex[1002], ¶236.

It would have also been obvious that the destinations could include an *occupant* or a *neighbor*, as those terms are used in the '817 patent. Ex[1001], 12:25-36; Ex[1009], [0141]; Ex[1002], ¶237. For instance, if applied in a mixed-use building containing lodging and retail shops, a POSITA would have been motivated to implement Childers/Barker to notify all of the listed entities in case of a fire or environmental hazard alarm. Ex[1002], ¶237. Barker also expressly discloses destinations based on a user's *role* and *location*, including a "*premises owner's* mobile device," "an *on-site* monitor," (occupant) "public authorities," or "emergency personnel." Ex[1010], [0054]-[0055]; Ex[1002], ¶237.

There would have been nothing unpredictable in using the Childers/Barker architecture to communicate to any of the recited individuals that may have interest in the system. Ex[1002], ¶238. Any modification to the Childers/Barker architecture would have been straightforward for a POSITA. *Id.*

13. Claim 14

Childers/Barker discloses "*dispatching the enhanced information automatically without requiring operator intervention to the one or more communication destinations using the one or more communication methods.*" For example, Childers discloses that dispatching occurs without operator intervention:

“data is automatically delivered, as seen in a block 104, when the client machine is connected.” Ex[1009], [0089]; [0123]; Ex[1002], ¶239.

14. Claim 15

Childers/Barker discloses *“receiving enhanced information, one or more communication methods, and one or more communication destinations via a user interface that is remotely accessible.”*

Childers discloses a remotely accessible user interface, including a personal device, for receiving enhanced information for display. Ex[1009], [0102], [0107], [0111], FIG.1, 2A-2C, [0055]; Ex[1002], ¶241. As described for limitation 1[c-2], the client device receives image data from the central server. §X.B.5. The remote user interface can receive user “manipulation” of data, including map configurations, and user configuration information, including communication methods and destinations: “client may manipulate data on the server to alter...network appliance associations...and network application configuration data...” Ex[1009], [0098], [0141] (configuration information include “email lists” and “alert lists” and “password and access data”); Ex[1002], ¶241. To the extent PO argues Childers/Barker does not disclose this limitation, Childers/Barker renders it obvious. It would have been a straightforward design choice for a POSITA to allow a user to provide enhanced information and indicate a preference of communication destination and method via a user interface. Ex[1002], ¶242.

15. Claim 16

Childers/Barker discloses “*receiving one or more communication methods and one or more communication destinations from data of a personal device*” for the same reasons discussed for claim 15. §X.C.14.

XI. SECONDARY CONSIDERATIONS

Petitioner is aware of no evidence of secondary considerations that would meaningfully rebut a finding of obviousness. PO contended during prosecution that the purported invention met a long-felt need, citing a 2001 paper describing the need to improve the “information made available to “the fire service.” Ex[1003], 56-57. But there is no evidence that the Challenged Claims solved this problem after 2001 at least because the intervening prior art cited herein disclosed each and every limitation of the Challenged Claims years before the alleged priority date of the ’817 patent.

XII. CONCLUSION

Petitioner respectfully requests that IPR of the ’817 patent be instituted and that the challenged claims be cancelled.

December 30, 2022

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Petition for *Inter Partes* Review of U.S. Patent No. 8,378,817

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CERTIFICATE OF SERVICE

The undersigned hereby certifies on this 30th day of December 2022, that true and correct copies of the foregoing PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 8,378,817, Exhibits 1001-1033, and Motorola Solutions, Inc.'s power of attorney, were served in their entirety to Patent Owner via FedEx Express® or USPS Express Mail at:

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**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE
REQUIREMENTS**

1. This Petition complies with the type-volume limitation of 14,000 words, comprising 13,908 words, excluding the parts exempted by 37 C.F.R. § 42.24(a).
2. This Petition complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word in 14-point Times New Roman.

December 30, 2022

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