

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

HID GLOBAL CORPORATION,	)	
	)	
Plaintiff,	)	C.A. No. 21-1769-VAC-JLH
	)	(CONSOLIDATED)
v.	)	
	)	
VECTOR FLOW, INC.,	)	
	)	
Defendant.	)	

DEFENDANT’S INITIAL INVALIDITY CONTENTIONS

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Defendant Vector Flow, Inc. (“Vector Flow” or “Defendant”) by and through counsel, hereby serve its Initial Invalidity Contentions on Plaintiff HID Global Corporation (“HID” or “Plaintiff”) regarding claims 11, 12, 13, 14, and 15 of U.S. Patent No. 8,234,704 (the “’704 Patent”), and claims 15, 16, 17, 19, and 20 of U.S. Patent No. 9,111,088 (the “’088 Patent”) (collectively, the “Asserted Claims” of the “Asserted Patents”).

Pursuant to the Court’s Scheduling Order (Dkt. 54), these are Defendant’s initial contentions regarding invalidity. Discovery is in its early stages and is ongoing, and claim construction disclosures and proceedings have not yet commenced. Defendant reserves the right to amend and/or supplement these initial contentions as the case proceeds in view of further discovery, information, and analysis. Pursuant to the Court’s Scheduling Order (*id.* at 4), these initial contentions are provided in accordance with the Court’s Default Standard for Discovery, Including Discovery of Electronically Stored Information (“ESI”) (“Delaware Default ESI Rules”), which provide that “[a]s these disclosures are ‘initial,’ each party shall be permitted to supplement.” Delaware Default ESI Rules, n.3. Defendant accordingly reserves the right to supplement these contentions as discovery proceeds, including to provide additional citations to supporting evidence with respect to the references cited herein (including without limitation evidence that may be obtained from third parties) and to supplement, amend, or modify these contentions in view of further information, analysis, and discovery.

I. INTRODUCTION

The following contentions are served in view of Defendant’s current understanding of the Asserted Claims as applied in Plaintiff’s August 1, 2022 infringement contentions claim chart disclosures (collectively “Infringement Contentions”). In many instances, Defendant’s contentions as stated may reflect or imply a certain claim scope or claim interpretation, which is

set forth in view of positions or interpretations suggested by Plaintiff's submissions to date, and in many instances Defendant's contentions may suggest different alternative claim interpretations. To the extent these contentions state, reflect, or suggest a particular interpretation or reading of any claim element, Defendant does not adopt, advocate, or acquiesce to such an interpretation or reading. Defendant's contentions therefore should not be relied upon as a statement of Defendant's claim interpretations and should not be relied upon as any admission regarding the proper scope of the claims. Defendant's claim construction positions will be provided at a later appropriate time in this case, as noted above. Nor do these contentions constitute any admission by Defendant that any accused products or services, including any current or past versions of those products or services, are covered by any Asserted Claim. Defendant does not take any position herein regarding the proper scope or construction of the Asserted Claims.

Any assertion herein that a particular limitation is disclosed by a prior art reference or references may be based in part on Plaintiff's apparent interpretation and is not intended to be, and is not, an admission by Defendant that any such construction or application of the claim language is supportable or correct. To the extent the following contentions reflect constructions of claim limitations consistent with or implicit in Plaintiff's Infringement Contentions, no inference is intended, nor should any be drawn, that Defendant agrees with or concedes those claim constructions. Defendant expressly does not do so, and reserves the right to contest them.

To the extent that prior art cited for a particular limitation discloses functionality that is the same or similar in some respects to the alleged functionality in the accused products and/or services as set forth in Plaintiff's Infringement Contentions, Defendant does not concede that those limitations are in fact met by those accused functionalities. However, to the extent Plaintiff

accuses the same or similar functionality as that disclosed in the prior art, Defendant contends such functionality is evidence of invalidity.

Defendant further reserves the right to supplement and amend these disclosures and associated document production based on further investigation, analysis, and discovery, Defendant's consultation with experts and others, and contentions or court rulings on relevant issues such as claim construction and priority dates.

Because Defendant is continuing their investigation and analysis of relevant prior art, Defendant reserves the right to revise, amend, and/or supplement the information provided herein. Additional prior art, disclosures, and invalidity grounds, whether or not cited in this disclosure and whether known or not known to Defendant, may become relevant as investigation, analysis, and discovery continue, and following claim construction proceedings in this case. Defendant is also currently unaware of the extent, if any, to which Plaintiff will contend that limitations of the Asserted Claims are not disclosed in the prior art identified by Defendant. To the extent that such an issue arises, Defendant reserves the right to identify and rely upon other disclosures regarding the allegedly missing limitation(s). Additionally, Defendant reserves the right to use these disclosures as well as further discovery and disclosures relating to the alleged utility and advantages of the Asserted Claims over old modes and devices for purposes of any damages issues in the case.

Furthermore, to the extent Plaintiff asserts the doctrine of equivalents, a "doctrine of equivalents theory cannot be asserted if it will encompass or 'ensnare' the prior art." *Jang v. Boston Sci.*, 872 F.3d 1275, 1285 (Fed. Cir. 2017). To the extent Plaintiff asserts the doctrine of equivalents for any of the claimed limitations, they would ensnare the prior art for the reasons and based on the evidence discussed below and in the accompanying charts. Defendant reserves the

right to use these disclosures as well as further discovery and disclosures, to the extent requested by Plaintiff in discovery, for purposes of rebutting infringement theories and supporting a finding of non-infringement.

II. PRIOR ART REFERENCES

Subject to Defendant's reservation of rights, attached hereto as the below-cited exhibits and incorporated by reference are claim charts providing an element-by-element disclosure of where specifically, in each prior art item, each element of the Asserted Claims of the Asserted Patent is found. Any reference to a figure in cited text incorporates by reference the figure itself, and any citation to a figure incorporates by reference any description of that figure in a reference. Similarly, any reference to a cited part or portion of a document encompasses all figures and text within the cited page or portion.

As noted above, these claim charts are based on Defendant's understanding of the claim constructions applied by Plaintiff, even though Defendant does not necessarily agree with those constructions, and reserves the right to dispute them. To the extent certain claim elements are indefinite under 35 U.S.C. § 112(2), as identified and described herein, the claim charts attempt to apply the prior art to the extent Defendant can understand the claim constructions applied by Plaintiff as found in Plaintiff's Infringement Contentions. By doing so, however, Defendant does not concede that these claim elements are definite or that one of skill in the art would have been informed with reasonable certainty about the scope of the claim element under *Nautilus Inc. v. Biosig Instrument, Inc.*, 134 S. Ct. 2120 (2014). To the extent any limitation is deemed not to be met exactly by an item of prior art, Defendant contends that the difference would have been obvious to a person of ordinary skill in the art/or and within the knowledge of one skilled in the art at the time of the alleged invention, so that the claimed invention would have been obvious both in light of the single reference alone and/or in light of combined references. Defendant does

not admit or concede that such element is not expressly or inherently disclosed by the reference at issue.

In addition to the claim charts, relevant disclosures of the references are cited and discussed herein below. Defendant may rely upon both the disclosures cited in the charts and the disclosures cited below, and accompanying discussions of cited disclosures, for purposes of demonstrating invalidity for anticipation and/or obviousness. Where no disclosure is cited in a reference with respect to a particular claim limitation, Defendant does not admit or concede that the reference fails to disclose or suggest that limitation. Furthermore, Defendant contends that each reference that is cited with respect to a particular asserted claim renders obvious all limitations of that claim, either by itself or in combination with one or more other references, as discussed further below.

In some instances, exemplary and illustrative emphasis and/or narrative commentary is provided in claim charts and herein below with respect to certain references and disclosures. Such emphasis and commentary are provided only for additional illustration and does not alter the full disclosures and teachings of the references that Defendant may rely upon.

A. Identification of References

The following chart summarizes the references and corresponding claim chart exhibits submitted herewith. The A series of exhibits corresponds to the '704 patent. The B series of exhibits corresponds to the '088 patent.

Exhibits	Reference(s)
A1	U.S. Pub. App. No. 2006/026597 A1 to Bryan et al. (“Bryan ’397”)
A2	U.S. Patent No. 7,467,400 B1 to Moss et al. (“Moss ’400”)
A3	U.S. Patent No. 8,272,053 B2 to Markham et al. (“Markham ’053”)
A4	U.S. Patent No. 7,113,090 B1 to Saylor et al. (“Saylor ’090”)

Exhibits	Reference(s)
A5	U.S. Patent No. 7,663,479 to Bapjay et al. (“Bapjay ’479”)
A6	U.S. Pub. App. No. 2002/118096A1 (“Hoyos”) U.S. Pub. App. No. 2006/123229A1 (“Holloway”) U.S. Patent No. 7,437,755 B2 (“Farino”) U.S. Pub. App. No. 2006/0242116A1 (“Ahmed”) U.S. Pub. App. No. 2003/0206100A1 (“Richman”) U.S. Pub. App. No. 2007/083915A (“Janakiraman”) U.S. Pub. App. No. 2003/005326A1 (“Flemming”) U.S. Patent No. 7,296,070 B2 (“Sweeney”) U.S. Pub. App. No. 2009/0320088A1 (“Gill”) U.S. Pub. App. No. 2006/0268758A1 (“Serani”) U.S. Pub. App. No. 2007/0030120A1 (“Gusse”) U.S. Patent No. 7,624,422 B2 (“Williams”) U.S. Patent No. 7,280,030 B1 (“Monaco”) U.S. Pub. App. No. 2007/0174907A1 (“Davis”)
A7	U.S. Pub. App. No. 2002/0063154 to Hoyos et al. (“Hoyos ’154”)
A8	U.S. Patent No. 6,542,075 B2 to Barker et al. (“Barker ’075”)
A9	U.S. Patent No. 6,256,737 B1 to Bianco et al. (“Bianco ’673”)
A10	U.S. Patent No. 7,512,965 to Amdur et al. (“Amdur ’965”)
A11	System prior art references including: B.A.S.I.S. by Stanley Security Solutions Eclipse Network Proximity Access Control System Alliance 8300 Smart Access Control System Software Metasys Access Control System and Facility Management System
A12	Tom, “Web Services & BACnet,” ASHRAE Journal, October 2004 (“Tom 2004”) Fisher, “BACnet™ and LONWORKS™: Compared and Contrasted,” PolarSoft (May 2004) (“Fisher 2004”)

Exhibits	Reference(s)
	Bushby and Newman, “BACnet Today: Significant New Features And Future Enhancements,” ASHRAE Journal, October 2003 (“Bushby 2002”) Allen et al., “IT Basics for Energy Managers – The Evolution of Building Automation Systems Toward the Web,” Strategic Planning for Energy and the Environment, Winter 2003, Vol. 22, No. 4 (“Allen 2003”) NISTIR 6392, GSA Guide to Specifying Interoperable Building Automation and Control Systems Using ANSI/ASHRAE Standard 135-1995, BACnet, November 1999 (“BACnet NISTIR 6392”) ASHRAE Releases BACnet Web Services Interface Specification for Public Review, October 22, 2004 (“ASHRAE Release 2004”) BSR/ASHRAEW Addendum c to ANSI/ASHRAE Standard 135-2004, Public Review Draft, First Public Review, October 2004 (“135-2004 Addendum c Public Review”)

Exhibits	Reference(s)
B1	U.S. Pub. App. No. 2006/0080541A1 (“Monaco”) U.S. Pub. App. No. 6,167,564 (“Fontana”) U.S. Patent No. 7,327,258 B2 (“Fast”) U.S. Pub. App. No. 2002/0118096A1 (“Hoyos”) U.S. Patent No. 7,940,302 B2 (“Mehrotra”) U.S. Patent No. 7,296,070 B2 (“Sweeney”) U.S. Pub. App. No. 2009/0320088A1 (“Gill”) U.S. Pub. App. No. 2006/0268758A1 (“Serani”) U.S. Pub. App. No. 2007/0030120A1 (“Gusse”) U.S. Pub. App. No. 2006/0123229A1 (“Holloway”) U.S. Patent No. 6,542,075 B2 (“Barker”) U.S. Patent No. 7,545,962 B2 (“Peirce”) U.S. Patent No. 7,624,422 B2 (“Williams”) U.S. Pub. App. No. 2003/0005326A1 (“Flemming”) U.S. Patent No. 7,187,279 B2 (“Chung”) U.S. Patent No. 7,475,812 B1 (“Novozhenets”) U.S. Patent No. 6,094,642 (“Stephenson”) U.S. Patent No. 6,721,689 B2 (“Markle”)

Exhibits	Reference(s)
	U.S. Pub. App. No. 2006/0213986A1 (“Register”)
B2	U.S. Pub. No. 2003/0023874 to Prokupets et al. (“Prokupets”) U.S. Patent No. 6,253,243 to Spencer (“Spencer”) U.S. Patent No. 7,328,234 to Nedbal et al. (“Nedbal”) U.S. Patent No. 5,557,747 to Rogers et al. (“Rogers”)
B3	Charatsis et al., <i>Home Building Automation Environment Arc</i> (2005) (“Charatsis”) Hoffmann, <i>Interoperability present trends – future roles</i> (2003) (“Hoffmann”) Kastner, <i>Communication Systems for Building Automation and Control</i> (2005) (“Kastner”) Wang, <i>Investigation on intelligent building standard communication protocols and application of IT technologies</i> (2004) (“Wang”) Brian Atkin, <i>Intelligent Buildings: Applications of IT and Building Automation to High Technology Construction Projects</i> (1988) (“Atkin”) John Bernaden, <i>Open Protocols: Communications Standard for Building Automation Systems</i> (1989) (“Bernaden”) Maurice Eyke, <i>Building Automation Systems</i> (1988) (“Eyke”) U.S. Pub. App. 2004/0210348 A1 to Imhof et al. (“Imhof ’348”) U.S. Pub. App. 2004/0215694 A1 to Podolsky (“Podolsky ’694”) U.S. Pub. App. 2005/0197847 A1 to Smith (“Smith ’847”) Open GIS Consortium Inc., <i>Sensor Model Language (SensorML) for In-situ and Remote Sensors</i> (2002) U.S. Pub. App. 2006/0067209 A1 to Sheehan et al. (“Sheehan ’209”), and corresponding issued U.S. Patent No. 8,769,106 B2 including its corresponding disclosures U.S. Pub. App. 2005/0096753 A1 to Arling et al. (“Arling ’753”), and corresponding issued U.S. Patent No. 7,136,709 B2 including its corresponding disclosures U.S. Pub. App. No. 2004/0030778 A1 to Kronenberg et al. (“Kronenberg ’778”), and corresponding issued U.S. Patent No. 7,490,066 B2 including its corresponding disclosures
B4	U.S. Pub. App. No. 2003/0206100 A1 to Richman et al. (“Richman ’100”)
B5	U.S. Pub. App. 2002/0046173 to Kelly (“Kelly ’173”)
B6	U.S. Patent No. 6,363,422 to Hunter et al. (“Hunter ’422”)
B7	U.S. Patent No. 6,256,737 to Bianco et al. (“Bianco ’737”)
B8	U.S. Patent No. 7,183,907 to Simon et al. (“Simon ’907”)

Exhibits	Reference(s)
B9	U.S. Patent No. 7,663,479 to Bapjay et al. (“Bapjay ‘479”)
B10	U.S. Patent No. 7,512,965 to Amdur et al. (“Amdur ‘965”)

Subject to Defendant’s reservation of rights, in compliance with the Court’s Scheduling Order, Defendant identifies the foregoing prior art references that anticipate and/or render obvious one or more of the Asserted Claims as listed above and reflected in the claim charts submitted herewith. For these purposes, a prior art instrumentality (such as a device or process) and associated references that describe that instrumentality shall count as one reference, as shall the closely related work of a single prior artist.

As a general matter, all portions of each prior art item are relied upon to support the disclosure and suggested teaching of each patent claim limitation, as all portions provide general support and context for the disclosure of each reference. Supporting citations in the claim charts are nevertheless provided, but do not necessarily represent every location where a particular claim element may be found in the prior art item. Defendant reserves the right to rely on additional, or different, portions of the prior art items other than those specifically cited in these claims charts, and to supplement and/or amend these charts and cited disclosures herein. Additionally, many of the prior art references are related patent applications and issued patents that contain substantially the same subject matter (*e.g.*, published U.S. patent applications, and issued U.S. patents, foreign applications or issued patents). Any citation to or quotation from any of these patent applications or patents, therefore, should be understood as encompassing any parallel citation to the same subject matter in other related or corresponding applications or patents. Defendant also reserves the right to later rely upon all references or portions of references to supplement or amend its disclosures contained herein.

Where disclosures of the references are cited in the claim charts with respect to particular claim limitations, the same cited disclosures of the references apply to the same and substantially similar limitations throughout the Asserted Claims. For convenient reference, the claim charts include cross-references between claim elements that contain the same or similar limitations. To the extent a disclosure of a reference is cited for a particular limitation that is not explicitly cross-referenced to a same or substantially similar limitation elsewhere in the Asserted Claims, the cited disclosure nevertheless applies across the same and substantially similar limitations throughout the Asserted Claims. Furthermore, where a disclosure of a reference is cited for one of the asserted claim limitations that is addressed for purposes of the obviousness groupings defined herein, Defendant hereby also relies upon that same cited disclosure as teaching and/or suggesting the other claim limitations that are also addressed for purposes of the same obviousness grouping, regardless of whether or not the claim chart for that reference also explicitly cites that same cited disclosure with respect to the other claim limitations.

In some instances, Defendant may cite foreign or international patent office documents that were published, at least in part, in a language other than English. In any such instances, Defendant relies upon the prior art documents and may also rely upon a translation of the documents. Defendant has provided claim charts using approximate translations to indicate the relevant portions of the references, including translations provided through Google Patents. In the event that Defendant elects a foreign-language reference in its final election of prior art in this case, Defendant will provide a certified translation of the reference into English to accompany the original document.

Each disclosed item of system or product prior art is evidence of a prior invention and making of the invention in the United States by another under 35 U.S.C. § 102(g), as evidenced

by the named inventor, authors, organizations, and publishers involved with each such reference, with the circumstances described and reflected in each reference including publications and system implementation references. For systems and products that are disclosed, Defendant also intends to rely on additional information and materials regarding those same systems and products, including information and materials not yet received from third-parties that may be sought through subpoenas.

Pursuant to the Court's Scheduling Order, Defendant is producing herewith copies of the related invalidating references (*e.g.*, publications, manuals and patents). Defendant may also produce copies of associated software and other associated electronic files where available and reserves the right to provide additional evidence of software, source code, documentation, and other materials in support of their contentions as discovery proceeds.

B. Identification of Anticipation and Obviousness Grounds

Subject to Defendant's reservation of rights, Defendant identifies in the attached Prior Art Invalidity Charts prior art references that anticipate the Asserted Claims under at least 35 U.S.C. §§ 102(a), (b), (e), and/or (g), either expressly or inherently, and/or render obvious the Asserted Claims under 35 U.S.C. § 103 either alone or in combination with other references. Each Asserted Claim is anticipated by, and/or obvious in view of, one or more items of prior art identified in these disclosures, alone or in combination. Tables identifying ways in which the prior art references cited herein render obvious the Asserted Claims are provided below.

As an initial matter, the asserted claims are rendered obvious over the prior art cited by the Patent Office during original prosecution, in combination with prior art references that have been newly identified as a result of this litigation and were not cited at the Patent Office during prosecution. Defendant hereby incorporates by reference as if fully set forth herein, all office

action rejections during the prosecutions of the '704 and '088 patents, including the references cited by each examiner and the stated reasoning of each office action rejection as applicable to each asserted claim. The asserted claims were allowed based upon purported points of novelty over the cited references of record that are not, in fact, points of novelty over the prior art as has been developed in the course of the litigation.

Specifically, in allowing the claims that issued as the asserted claims of the '704 patent, the examiner stated:

The following is an examiner's statement of reasons for allowance: The primary reason for the allowance of the claims is the inclusion of the limitation, inter alia, "each sensor configured to generate a sensor signal in response to a defined event, wherein the sensor signal is provided in a native format proprietary to a manufacturer of the respective sensor ... a normalization module configured to normalize the sensor signal data in accordance with a defined data mapping scheme by mapping the sensor signal data from each security sensor in the native format of each manufacturer to a common format ... generate unique physical access privileges and credentials to exclusively map a user's profile to a spatial hierarchy of physical sites along with security devices of the system, wherein the unique physical access privileges maintain a common representation of the user's identity across the plurality of sites and to associate specific user identities with respective actionable events ... wherein the security policies define standardized rule definitions through visual rules depicted by live objects that contain attributes to define their spatial relationship to the actionable events". The claimed features of receiving a plurality of sensor data in native formats of the sensors, normalizing all of the sensor data to a common format, and using the sensor data in combination with user profiles that are mapped to a spatial hierarchy of physical sites for physical access control as claimed is not taught in the prior art.

Notice of Allowability dated May 17, 2012, at 2-3. The claimed combination of features, however, was disclosed and suggested in prior art that was not cited during prosecution, as reflected in the claim charts submitted herewith. The prior art submitted herewith that discloses and suggests these features, in combinations including combinations with the references that were cited during prosecution, renders obvious the claimed subject matter of the asserted claims of the '704 patent.

With respect to the '088 patent, the examiner provided an Examiner's Amendment in connection with the notice of allowance of the pending claims, adding the underlined claim language as follows:

receiving a plurality of signals from disparate security devices distributed throughout the site, wherein each signal of the plurality of signals is formatted in accordance with a proprietary format defined specifically for a device specified by a manufacturer of each respective security device; the network resources comprising HVAC, lighting, building, video, alarms, identity management, and event security system components;

Notice of Allowability dated July 1, 2015, at 7. The examiner commented as follows:

This communication warrants No Examiner's Reason for Allowance, the examiners amendment (below) makes evident the reasons for allowance, satisfying the "record as a whole" proviso of the rule 37 CFR 1.104(e). Specifically, the examiners amendment herein serve as such the reasons for allowance are in all probability evident from the record and no statement is deemed necessary (see MPEP 1302.14) because the additional limitations in combination with the previous limitations are not found in the prior art.

Notice of Allowability dated July 1, 2015, at 2. The claimed combination of features, however, was disclosed and suggested in prior art that was not cited during prosecution, as reflected in the claim charts submitted herewith. The prior art submitted herewith that discloses and suggests these features, in combinations including combinations with the references that were cited during prosecution, renders obvious the claimed subject matter of the asserted claims of the '088 patent.

Much of the art identified in the attached exhibits/charts reflects common knowledge and the state of the art at the time of the filing date of each Asserted Patent. Defendant may rely on additional citations, references, expert testimony, fact testimony and other corroborating evidence, and other material to provide context and background illustrating the knowledge of a person of ordinary skill in the art at the time of the claimed inventions and/or to aid in understanding the

cited portions of the references and/or cited features of the systems. Defendant may also rely on expert testimony explaining relevant portions of references, relevant hardware or software products or systems, and other discovery regarding these subject matters. Additionally, Defendant may rely on other portions of any prior art reference for purposes of explaining the background and general technical subject area of the reference.

Where an individual reference is cited in a claim chart with respect to all elements of an Asserted Claim, Defendant presently contends that the reference anticipates the claim under 35 U.S.C. §§ 102(a), (b), (e), and/or (g) and also renders obvious the claim under 35 U.S.C. § 103, both by itself in view of the knowledge of a person of ordinary skill in the art and in combination with the other cited references to the extent the reference is not found to disclose one or more claim elements. A single prior art reference, for example, can establish obviousness where the differences between the disclosures within the reference and the claimed invention would have been obvious to one of ordinary skill in the art. For example, “[c]ombining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness.” *Boston Scientific Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009). To the extent Plaintiff contends that an embodiment within a particular item of prior art does not fully disclose all limitations of a claim, Defendant accordingly reserves the right to rely on other embodiments in that prior art reference, or other information, to show single reference obviousness under 35 U.S.C. § 103(a).

Where an individual reference is cited with respect to a certain claim element of an Asserted Claim, Defendant contends that the reference renders obvious the claim under 35 U.S.C. § 103(a) in view of each other reference and combination of references that discloses the other claim element(s), as indicated in the claim charts submitted herewith and in the discussion below.

“Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007), quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966). Exemplary motivations to combine references are discussed below and reflected in the cited disclosures set forth in the accompanying charts. Defendant reserves the right to rely upon any references or assertions identified herein, including disclosures and teachings of the references that are cited in the claim charts submitted herewith, in connection with Defendant’s contention that each Asserted Claim is invalid under 35 U.S.C. § 103 and to rely upon expert testimony addressing such references and assertions.

The fact that prior art is identified to anticipate the Asserted Claims presents no obstacle in also relying on that reference as a basis for invalidity based on obviousness. It is established that “a rejection for obviousness under § 103 can be based on a reference which happens to anticipate the claimed subject matter.” *In re application of Meyer*, 599 F.2d 1026, 1031 (C.C.P.A. 1979). To the extent any prior art item cited above may not fully disclose a limitation of an Asserted Claim or is alleged by Plaintiff to lack disclosure of the limitation, such limitation is present and identified in another prior art item as shown in the attached claim charts.

Many of the cited references cite or relate to additional references and/or products, services, or projects. Many of the cited references also cite software, hardware, or systems. Defendant may rely upon such cited additional references and copies or exemplars of such software, hardware, or systems. Defendant will produce or make available for inspection any such cited references, software, hardware, or systems that it intends to rely upon. Defendant may also rely upon the

disclosures of the references cited and/or discussed during the prosecution of the Asserted Patents and/or the assertions presented regarding those references.

Although Defendant has identified at least one disclosure of a limitation for each prior art reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. In an effort to focus the issues, Defendant cites representative portions of an identified reference, even where a reference may contain additional support for a particular claim limitation. Persons of ordinary skill in the art generally read an item of prior art as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general scientific knowledge. As such, Defendant may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited.

Certain disclosures and suggestions in the prior art apply to the asserted claims of both the '704 patent and the '088 patent for purposes of rendering obvious claimed subject matters with substantially similar or overlapping scope between the two sets of asserted claims. As such, where disclosures of the prior art are cited in a claim chart with respect to a limitation of an asserted claim of the '704 patent, Defendants also hereby discloses its reliance on the same references and disclosures with respect to the corresponding similar or overlapping limitations of an asserted claim of the '088 patent, regardless of whether the same references and/or disclosures are also separately cited in a claim chart with respect to the '088 patent, and vice versa with respect to references and disclosures cited with respect to limitations of the '088 patent claims that apply to corresponding similar or overlapping limitations of the asserted claims of the '704 patent.

Specifically, where disclosure in a reference is cited with respect to one of the following claim limitations of one of the patents, Defendant discloses its reliance upon the same reference and disclosure with respect to the identified corresponding limitation in the other patent:

'704 patent	'088 patent
11(a) (“interfacing in a centralized security system, a plurality of security sensor types distributed throughout a plurality of sites, each sensor type configured to respond to a corresponding type of actionable event, each sensor type provided by a different manufacturer of a plurality of manufacturers”)	15(a) (“defining a first plurality of objects representing actors, facilities, physical security states, and network resources within a managed site comprising security components utilizing physical security data and information technology (IT) data”) 15(d) (“receiving a plurality of signals from disparate security devices distributed throughout the site... the network resources comprising HVAC, lighting, building, video, alarms, identity management, and event security system components”)
11(b) (“accepting sensor data from each security sensor an integration module including an agent for each type of security sensor, wherein the sensor data from each security sensor is embodied in a native data representation format of each respective manufacturer of the plurality of manufacturers”)	15(a) (“defining a first plurality of objects representing actors, facilities, physical security states, and network resources within a managed site comprising security components utilizing physical security data and information technology (IT) data”) 15(d) (“...wherein each signal of the plurality of signals is formatted in accordance with a proprietary format defined specifically for a device specified by a manufacturer of each respective security device, the network resources comprising HVAC, lighting, building, video, alarms, identity management, and event security system components”)
11(c) (“defining individual user profiles and their respective access privileges and credentials in the system”) 11(e) (“generating unique physical access privileges and credentials to exclusively map a defined user profile to a spatial hierarchy of physical sites along with security devices of the system, wherein the unique physical access credentials maintain a common representation of the user’s	15(g) (“building, in a physical security state engine, active access lists and states for physical access control systems through the extracted physical security data and the daemon process, wherein the active access lists define at runtime access information for individuals or groups of individuals defined within the system”)

'704 patent	'088 patent
identity across the plurality of sites and to associate specific user identities with respective actionable events”)	
11(d) (“mapping the sensor data from each security sensor in the native data representation format of each manufacturer of the plurality of manufacturers to a common data representation format...”)	15(h) (“normalizing the plurality of signals from each proprietary format to an Extensible Markup Language (XML) format to produce normalized signal data...”)
11(f) (“defining physical security policies of the site in the context of user profiles at all sites through actionable representations of physical, network and information technology resources of the site...”)	15(a) (“defining a first plurality of objects representing actors, facilities, physical security states, and network resources within a managed site comprising security components utilizing physical security data and information technology (IT) data;”)
11(g) (“receiving the normalized event data and applying relevant transformation and routing rules comprising condition-action sequences in order to maintain user profiles and physical security states across the plurality of sites and to resolve the actionable events through the associated specific user identities.”)	15(m) (“transmitting the control signals to the security system components in their respective proprietary format;”)
12 (“...wherein the action events comprise at least one of generating an audible alarm, notifying authority personnel, initiating lockdown mode of the site, initiating computer backup and shutdown procedures, and facilitating exit from the site.”)	17 (“...wherein the policies serve to control management of the security system in a distributed computing environment by providing at least one of: an oversight mechanism over data changes in the system, enforcement of corporate policies by defining the system policies in accord with security guidelines, monitoring compliance by tracking violations, generating alarms on violations, and task assignments for personnel to resolve policy violations.”)
13 (“...converting the native data representation format for each security sensor into XML (Extensible Markup Language) format...”	15(h) (“normalizing the plurality of signals from each proprietary format to an Extensible Markup Language (XML) format to produce normalized signal data...”)
15 (“...the visual editor including a drag and drop graphical user interface component that facilitates creation of rules through interconnection of rule objects and definition of rule properties.”)	16 (“...wherein the rule is constructed using a graphical visual policy editor that processes virtual objects...”)

Defendant further discloses its initial invalidity contentions as follows.

1. Anticipation

To the extent a prior art claim chart provided herewith identifies applicable disclosure in a cited reference for each element of any Asserted Claim, Defendant contends that the charted reference anticipates that Asserted Claim, at least under a potential claim interpretation Plaintiff may assert. Accordingly, Defendant hereby identifies each such reference as a reference that anticipates each such applicable Asserted Claim. Defendant reserves the right to modify this disclosure in view of further information, discovery, and analysis.

2. Obviousness and Motivations to Combine

Each prior art reference may be combined with one or more other prior art references to render obvious the Asserted Claims in combination, as explained in more detail below. The disclosures of these references also may be combined with information known to persons skilled in the art at the time of the alleged invention, and further without limitation combined with the references and disclosures cited during original prosecution of each Asserted Patent, and understood and supplemented in view of the common sense of persons skilled in the art at the time of the alleged invention, including any statements in the intrinsic record of the Asserted Patent and related applications.

To the extent a prior art claim chart provided herewith identifies applicable disclosure for each element of any Asserted Claim, Defendant contends that the charted reference renders obvious that Asserted Claim, at least under a potential claim interpretation that Plaintiff may assert, in view of the disclosures of the reference and the knowledge of a person of ordinary skill in the art at the time of the claimed invention, as well as in combination with the disclosures of other references cited and discussed herein. A single prior art reference can establish obviousness where the differences between the disclosures within the reference and the claimed invention would have

been obvious to one of ordinary skill in the art. As an example, “[c]ombining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness.” *Boston Scientific Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009); *see also General Elec. Co. v. Raytheon Techs. Corp.*, Appeal No. 2019-1319, slip op. at 30-32 (Fed. Cir. Dec. 23, 2020) (discussing obviousness of disclosures contained in a single reference). To the extent Plaintiff contends that an embodiment within a particular item of prior art does not fully disclose all limitations of a claim, Defendant accordingly reserves the right to rely on other embodiments in that prior art reference, or other information, to show single reference obviousness under 35 U.S.C. § 103(a).

Defendant contends that each reference charted against each asserted claim renders obvious the claim under 35 U.S.C. § 103(a) in view of each other reference and combination of references that discloses the claim limitations, as indicated in the claim charts submitted herewith and in the discussion below. “Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007), quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966). Exemplary motivations to combine references are discussed below and in the accompanying charts. Defendant reserves the right to rely upon any references or assertions identified herein in connection with the contention that each Asserted Claim is invalid under 35 U.S.C. § 103 and to rely upon expert testimony addressing such references and assertions. The fact that prior art is identified to anticipate the Asserted Claims for purposes of the present contentions presents no obstacle in also preserving the right to rely on that reference as a basis for invalidity based on

obviousness. To the extent any prior art item cited herein may not fully disclose a limitation of an Asserted Claim or is alleged by Plaintiff to lack disclosure of the limitation, such limitation is present and identified in another prior art item as shown in the attached claim charts.

A person of ordinary skill would have been motivated to combine the identified prior art based on the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. The identified prior art references, including portions cited in the Prior Art Invalidity Charts, address the same or similar technical issues and suggest the same or similar solutions to those issues as the Asserted Claims. On such basis, on an element-by-element basis, Defendant expressly intends to combine one or more prior art items identified in Appendix A with each other to address any further contentions from Plaintiff that a particular prior art item supposedly lacks one or more elements of an Asserted Claim. In other words, Defendant contends that each charted prior art item can be combined with other charted prior art items when a particular prior art item lacks or does not explicitly disclose an element or feature of an Asserted Claim. The suggested obviousness combinations described below are not to be construed to suggest that any reference included in the combinations is not anticipatory. Further, to the extent that Plaintiff contends that any of the anticipatory prior art fails to disclose one or more limitations of the Asserted Claims, Defendant reserves the right to identify other prior art references that, when combined with the anticipatory prior art, would render the claims obvious despite an allegedly missing limitation. Defendant will further specify the motivations to combine the prior art, including through reliance on expert testimony, at the appropriate later stage of this lawsuit.

A person of skill in the art would have been motivated to combine the identified prior art items. As the United States Supreme Court held in *KSR International Company v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007): “The combination of familiar elements according to known methods is

likely to be obvious when it does no more than yield predictable results.” The Supreme Court further held that, “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.* at 417.

The Supreme Court has further held that “in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* at 420. It is sufficient that a combination of elements was “obvious to try” holding that, “[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *Id.* at 421. “In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.” *Id.* Finally, the Supreme Court recognized that “[g]ranting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility.” *Id.* at 419. All of the following rationales recognized in *KSR* support a finding of obviousness:

- Combining prior art elements according to known methods to yield predictable results;
- Simple substitution of one known element for another to obtain predictable results;

- Use of known technique to improve similar devices (methods, or products) in the same way;
- Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; and
- Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

Certain of these rationales are discussed more specifically below. The fact that others are not discussed more specifically should not be interpreted as an admission or concession that it does not apply. To the contrary, the discussion below simply provides more explanation of these specific rationales.

Defendant further contends that the prior art identified in these Invalidity Contentions is evidence of simultaneous or near-simultaneous independent invention by others of the alleged invention as recited in one or more of the Asserted Claims. Defendant reserves the right to rely on the simultaneous or near-simultaneous independent invention by others as further evidence of the obviousness of the Asserted Claims.

Each limitation of the Asserted Claims was well known to those of ordinary skill in the art before the filing dates of the respective non-provisional application to which each Asserted Patent claims priority, as detailed below and in the attached charts.

The elements recited in the Asserted Claims are mere combinations and modifications of these well-known elements. A person of ordinary skill in the art would be able, and motivated, to improve the existing technology in the same or similar manner by combining or modifying the individual elements that were already known in the art to yield predictable results.

Subject to the foregoing, Defendant identifies the following exemplary reasons that skilled artisans would have combined elements of the prior art to render obvious the Asserted Claims. The fact that others are not discussed more specifically should not be interpreted as an admission or concession that it does not apply. To the contrary, the discussion below simply provides more explanation of these specific rationales.

a. Motivations Identified During Prosecution

Defendant hereby expressly incorporate by reference the statements and reasons set forth by each Examiner during prosecution of the Asserted Patents as to why it would have been obvious to modify or combine references and prior art disclosures to achieve the limitations of the Asserted Claims.

b. Combinations of References Through Citations

Numerous prior art references cite to, discuss, or build upon other references. Where one reference cites or discusses another reference, a person of ordinary skill in the art would have been motivated to consider their teachings in combination, as they would be understood to provide related teachings in a similar field.

In some instances, multiple prior art publications and/or physical references discuss or address the same or substantially similar underlying system, software, or other project, such as commercial software products and successive versions thereof, or multiple publications discussing the same subject matter. Where multiple references discuss or relate to the same or related underlying projects, systems, or other subject matter, it was obvious to combine the discussions and disclosures of the references as they would be understood to describe features or potential features of the underlying project, system, technique, or other subject matter. Similarly, where one reference cites or discusses other references or their teachings, or references have one or more authors in common and a related area of subject matter, it was obvious to consider the teachings of the references in combination with each other due to the express relationships and commonalities between the references.

Further, for each set of references that together refer to or describe the same system and/or potential improvements to the same system, it would have been obvious to combine such references. In particular, to the extent the items are commonly owned, they would be within the knowledge of the same company, and the company would be motivated to use elements from one reference to improve another seeking to solve the same or similar problems.

c. Obviousness Combination Groups and Further Motivations to Combine

In addition to combinations of references and motivations to combine identified elsewhere herein, including within claim charts, Defendant identifies combinations and motivations to combine based on references grouped by subject matter, in the manner approved by district courts regarding invalidity contentions. *See, e.g., Avago Techs. Gen IP PTE Ltd. v. Elan Micro. Corp.*, No. C04-05385 JW (HRL), 2007 U.S. Dist. LEXIS 97464, at *10-11 (N.D. Cal. Mar. 28, 2007) (organizing prior art references into “groups” and identifying combinations as a set of references

“and/or” another set of references); *Keithley v. Homestore.com, Inc.*, 553 F. Supp. 2d 1148, 1150 (N.D. Cal. 2008) (following *Avago* – “Apple’s grouping method is permissible under the Local Rules”); *see also Multimedia Patent Trust v. Apple Inc.*, Case No. 3:10-cv-02618-H (KSC), 2012 WL 12868250 (S.D. Cal. Nov. 5, 2012); *High Point Sarl v. Sprint Nextel Corp.*, 2011 U.S. Dist. LEXIS 111158, at *29-30 (D. Kan. Sept. 28, 2011).

Defendant identifies references in groups below, based on common subject matter relevant to the Asserted Claims, for the purpose of disclosing obviousness combinations and further disclosing motivations to combine.

The absence of a particular reference from a group is not an admission or suggestion that the reference does not disclose or suggest any particular claim limitations. In some instances, a reference may fully disclose and/or suggest the obviousness of a claim limitation but not be identified within the applicable group for purposes of defining groups of reference for purposes of disclosing obviousness combinations for these contentions.

**(1) “Normalizing Manufacturer Formatted Signals”
References (’088 and ’704 patents)**

The asserted claims of the ’088 patent recite the limitation of “receiving a plurality of signals from disparate security devices distributed throughout the site, wherein each signal of the plurality of signals is formatted in accordance with a proprietary format defined specifically for a device specified by a manufacturer of each respective security device,” “receiving, in a single integration layer component from each of the plurality of objects in the proprietary data format of a respective security component and integrate disparate proprietary data formats for aggregation and processing in other components,” and “normalizing the plurality of signals from each proprietary format to an Extensible Markup Language (XML) format to produce normalized signal data, wherein the XML format is configured to describe system policies through the use of virtual

objects that comprise components of executable rules, and represents relationships between the virtual objects and corresponding devices, objects and processes, and wherein the schema defines one or more attributes of the executable rules including inputs from the system components, actions to be taken based on the input, addresses of system components performing the actions, and states to be maintained by the network resources.” The asserted claims of the ’704 patent recite a step of interfacing in a centralized security system, a plurality of sensor types provided by different manufacturers, and accepting sensor data from each including an agent for each type of security sensor, wherein the sensor data from each security sensor is embodied in a native data representation format of each respective manufacturer,” a step of “mapping the sensor data from each security sensor in the native data representation format of each manufacturer of the plurality of manufacturers to a common data representation format, the common data representation format including a data object and processing information for the sensor data,” and a step of applying definitions to actionable events “normalized to the common data representation format to produce normalized event data,” and asserted dependent claim 13 further recites “converting the native data representation format for each security sensor into XML (Extensible Markup Language) format, and wherein the native data representation format encompasses native sensor data including text data and binary data represented in a proprietary format, and wherein the native sensor data includes at least one of a command or sensor state information.”

Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, this feature was well-known, routine, conventional, and widely available long before the alleged invention. As the attached claim charts demonstrate, this subject matter is disclosed in numerous references. For purposes of these contentions, references whose disclosures

are cited in these contentions with respect to this claimed subject matter as reflected in the claim charts are hereby labeled the “**Normalizing Manufacturer Formatted Signals**” references.

The prior art demonstrates that a person of ordinary skill in the art would have been motivated to achieve the claimed limitations consistent with the claimed invention. Numerous references taught and motivated the implementation of multiple security devices and/or sensors that provided data that was formatted in accordance with particular formats based on the manufacturer of the device or sensor, as well as techniques for converting, translating, and/or normalizing the data from different formats into a common format, such as by using XML. It was well-known in the prior art and motivated as a desirable and advantageous design choice that XML was well-suited for use in providing a common format for data from multiple disparate sources, that was both machine-readable through its markup protocol as well as human-readable. XML and other common data formats were recognized and appreciated as well-suited for implementations of data recording, processing, and storage such as in networking and web-based contexts as well as in security and site control system contexts, for purposes including data processing compatibility, convenience, efficiency, and control for personnel involved with the systems.

These teachings are reflected in the disclosures of the references cited in these contentions, which Defendant may rely upon as part of demonstrating obviousness. Where a claim chart provided herewith cites a disclosure of a reference with respect to any one of these limitations, Defendant hereby also rely upon the same cited disclosure as teaching and/or suggesting each other limitation in this grouping, regardless of whether or not the claim chart also explicitly cites the same disclosure with respect to each other limitation in this grouping. Nothing about these claim

limitations add anything novel or non-obvious over the prior art. To the contrary, such features were well-known, routine, conventional, and widely available before the alleged invention.

The use of these features as recited in the claims would have been obvious to a person of ordinary skill in the art least because doing so would have involved the combination of prior art elements according to known methods to yield predictable results, the simple substitution of one known element for another to obtain predictable results, the application of a known technique to a known device ready for improvement to yield predictable results, and/or would have been obvious to try. Moreover, a person of ordinary skill in the art would have readily appreciated the well-known and widespread use and disclosure of these subject matters and the motivation to implement them as suggested by the references.

Persons of ordinary skill in the art would have been motivated to combine the teachings of these references with the other references cited herein, in view of the foregoing considerations and those further reflected in the references. Defendant further hereby specifically incorporates by reference, and may rely upon for purposes of showing obviousness including motivations to combine, the disclosures cited for each reference with respect to the relevant limitations as cited in the prior art claim charts submitted herewith and the disclosures and teachings further cited below. Each cited disclosure evidences a teaching that a person of ordinary skill in the art would have considered relevant, and each cited disclosure may be relied upon as evidence of a teaching, suggestion, or motivation to combine the subject matter of the disclosure with other reference disclosures. Persons of ordinary skill in the art would have been motivated to combine these teachings of these references accordingly with the other references addressed herein to the extent they are not found to disclose this feature.

Defendant reserves the right to modify this disclosure upon further information, discovery, and analysis as the case progresses.

(2) “Access Privileges” References (’088 and ’704 patents)

The asserted claims of the ’088 patent recite limitations including defining objects representing “actors” and related information, building “active access lists and states for physical access control systems . . . wherein the active access lists define at runtime access information for individuals or groups of individuals defined within the system,” processing for control and extracting physical security data in connection with “physical access control rules,” and defining policies including “user” policies. The asserted claims of the ’704 patent recite steps including “defining individual user profiles and their respective access privileges and credentials in the system,” “generating unique physical access privileges and credentials to exclusively map a defined user profile to a spatial hierarchy of physical sites along with security devices of the system, wherein the unique physical access credentials maintain a common representation of the user’s identity across the plurality of sites and to associate specific user identities with respective actionable events,” and receiving even data and applying rules to maintain user profiles and physical security states.

Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, this feature was well-known, routine, conventional, and widely available long before the alleged invention. As the attached claim charts demonstrate, this subject matter is disclosed in numerous references. For purposes of these contentions, references whose disclosures are cited in these contentions with respect to this claimed subject matter as reflected in the claim charts are hereby labeled the “**Access Privileges**” references.

The prior art demonstrates that a person of ordinary skill in the art would have been motivated to achieve the claimed limitations consistent with the claimed invention. Numerous references taught and motivated the implementation of physical access control systems defining access lists and access privileges for individuals and/or groups of individuals, including unique privileges and credentials and including definitions with profiles mapped to a hierarchy of sites, as well as common representations of a user's identity across sites. The asserted patents' Background sections acknowledge that various types of access control systems, such as with repositories of individual records and access privileges and hardware such as card readers and biometric sensors and controllers were known in the prior art. It was also well-known and considered an advantageous design choice to integrate such access control systems with other security and control systems, as discussed separately in these contentions.

These teachings are reflected in the disclosures of the references cited in these contentions, which Defendant may rely upon as part of demonstrating obviousness. Where a claim chart provided herewith cites a disclosure of a reference with respect to any one of these limitations, Defendant hereby also rely upon the same cited disclosure as teaching and/or suggesting each other limitation in this grouping, regardless of whether or not the claim chart also explicitly cites the same disclosure with respect to each other limitation in this grouping. Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, such features were well-known, routine, conventional, and widely available before the alleged invention.

The use of these features as recited in the claims would have been obvious to a person of ordinary skill in the art least because doing so would have involved the combination of prior art elements according to known methods to yield predictable results, the simple substitution of one known element for another to obtain predictable results, the application of a known technique to a

known device ready for improvement to yield predictable results, and/or would have been obvious to try. Moreover, a person of ordinary skill in the art would have readily appreciated the well-known and widespread use and disclosure of these subject matters and the motivation to implement them as suggested by the references.

Persons of ordinary skill in the art would have been motivated to combine the teachings of these references with the other references cited herein, in view of the foregoing considerations and those further reflected in the references. Defendant further hereby specifically incorporates by reference, and may rely upon for purposes of showing obviousness including motivations to combine, the disclosures cited for each reference with respect to the relevant limitations as cited in the prior art claim charts submitted herewith and the disclosures and teachings further cited below. Each cited disclosure evidences a teaching that a person of ordinary skill in the art would have considered relevant, and each cited disclosure may be relied upon as evidence of a teaching, suggestion, or motivation to combine the subject matter of the disclosure with other reference disclosures. Persons of ordinary skill in the art would have been motivated to combine these teachings of these references accordingly with the other references addressed herein to the extent they are not found to disclose this feature.

Defendant reserves the right to modify this disclosure upon further information, discovery, and analysis as the case progresses.

(3) “Visualization” References (’088 and ’704)

The asserted claims of the ’704 patent recite limitations including that “the security policies define standardized rule definitions through visual rules depicted by live objects that contain attributes to define their spatial relationship to the actionable representations, and that are applied to the actionable events normalized to the common data representation format to produce

normalized event data,” and in dependent claim 15 “representing, through a visual editor, each normalized physical sensor as an object containing one or more attributes that define a spatial relationship to other objects through one or more defined rules, the visual editor including a drag and drop graphical user interface component that facilitates creation of rules through interconnection of rule objects and definition of rule properties.” Asserted claim 16 of the ’088 patent recites that “the rule is constructed using a graphical visual policy editor that processes virtual objects, and wherein the physical security states and their relationships with network resources are managed and depicted as the virtual objects.”

Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, this feature was well-known, routine, conventional, and widely available long before the alleged invention. As the attached claim charts demonstrate, this subject matter is disclosed in numerous references. For purposes of these contentions, references whose disclosures are cited in these contentions with respect to this claimed subject matter as reflected in the claim charts are hereby labeled the “**Visualization**” references.

The prior art demonstrates that a person of ordinary skill in the art would have been motivated to achieve the claimed limitations consistent with the claimed invention. Numerous references taught and motivated the implementation of visually depicted rules and objects, including through graphical user interfaces that could include drag and drop interface components, permitting the creation and editing of objects, rules, properties, definitions, and other information. Graphical and visual editor functions were well-known in the prior art as convenient, efficient, and user-friendly interfaces to design, implement, and edit access control systems and other security and control systems. A person of ordinary skill in the art would have considered it routine and conventional to use software, such as desktop computer application software, with graphical user

interface functions and features consistent with the claimed subject matters, at least under Plaintiff's apparent claim interpretations.

These teachings are reflected in the disclosures of the references cited in these contentions, which Defendant may rely upon as part of demonstrating obviousness. Where a claim chart provided herewith cites a disclosure of a reference with respect to any one of these limitations, Defendant hereby also rely upon the same cited disclosure as teaching and/or suggesting each other limitation in this grouping, regardless of whether or not the claim chart also explicitly cites the same disclosure with respect to each other limitation in this grouping. Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, such features were well-known, routine, conventional, and widely available before the alleged invention.

The use of these features as recited in the claims would have been obvious to a person of ordinary skill in the art least because doing so would have involved the combination of prior art elements according to known methods to yield predictable results, the simple substitution of one known element for another to obtain predictable results, the application of a known technique to a known device ready for improvement to yield predictable results, and/or would have been obvious to try. Moreover, a person of ordinary skill in the art would have readily appreciated the well-known and widespread use and disclosure of these subject matters and the motivation to implement them as suggested by the references.

Persons of ordinary skill in the art would have been motivated to combine the teachings of these references with the other references cited herein, in view of the foregoing considerations and those further reflected in the references. Defendant further hereby specifically incorporates by reference, and may rely upon for purposes of showing obviousness including motivations to combine, the disclosures cited for each reference with respect to the relevant limitations as cited

in the prior art claim charts submitted herewith and the disclosures and teachings further cited below. Each cited disclosure evidences a teaching that a person of ordinary skill in the art would have considered relevant, and each cited disclosure may be relied upon as evidence of a teaching, suggestion, or motivation to combine the subject matter of the disclosure with other reference disclosures. Persons of ordinary skill in the art would have been motivated to combine these teachings of these references accordingly with the other references addressed herein to the extent they are not found to disclose this feature.

Defendant reserves the right to modify this disclosure upon further information, discovery, and analysis as the case progresses.

(4) “Network Resource Types” References (’088 patent)

The asserted claims of the ’088 patent recite the limitation that network resources in a managed site comprise “HVAC, lighting, building, video, alarms, identity management, and event security system components.” Nothing about this feature adds anything novel or non-obvious over the prior art. To the contrary, this subject matter was well-known, routine, conventional, and widely available long before the alleged invention. As the attached claim charts demonstrate, this subject matter is disclosed in numerous references. For purposes of these contentions, references whose disclosures are cited in these contentions with respect to this claimed subject matter as reflected in the claim charts are hereby labeled the “**Network Resource Types**” references.

Specifically, this limitation was added by an Examiner’s Amendment during prosecution of the application that issued as the ’088 patent as a purported point of novelty over the prior art of record. However, prior art not of record during the prosecution demonstrates that a person of ordinary skill in the art would have been motivated to include network resources including HVAC, lighting, building, video, alarms, identity management, and event security system components in

one integrated system within a managed site consistent with the claimed invention. Numerous references taught and motivated the desirability of integrating physical systems in buildings such as HVAC, lighting, video, and alarms with personnel-related systems such as identity management, and with event security systems. It was well-known in the prior art that designers and builders of buildings and control systems to be installed in buildings, including commercial buildings such as offices and physical plants as well as residential buildings, desired to integrate and control a broad set of network resources within managed sites for purposes including convenience, efficiency, and control for personnel involved with the systems. References relating to building automation systems, intelligent building, and related subject matters, as well as efforts at standardization such as BACnet, taught and motivated the benefits and desirability of encompassing such various types of network resources.

These teachings are reflected in the disclosures of the references cited in these contentions, which Defendant may rely upon as part of demonstrating obviousness. Where a claim chart provided herewith cites a disclosure of a reference with respect to any one of these limitations, Defendant hereby also rely upon the same cited disclosure as teaching and/or suggesting each other limitation in this grouping, regardless of whether or not the claim chart also explicitly cites the same disclosure with respect to each other limitation in this grouping. Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, such features were well-known, routine, conventional, and widely available before the alleged invention.

The use of these features as recited in the claims would have been obvious to a person of ordinary skill in the art least because doing so would have involved the combination of prior art elements according to known methods to yield predictable results, the simple substitution of one known element for another to obtain predictable results, the application of a known technique to a

known device ready for improvement to yield predictable results, and/or would have been obvious to try. Moreover, a person of ordinary skill in the art would have readily appreciated the well-known and widespread use and disclosure of these subject matters and the motivation to implement them as suggested by the references.

Persons of ordinary skill in the art would have been motivated to combine the teachings of these references with the other references cited herein, in view of the foregoing considerations and those further reflected in the references. Defendant further hereby specifically incorporates by reference, and may rely upon for purposes of showing obviousness including motivations to combine, the disclosures cited for each reference with respect to the relevant limitations as cited in the prior art claim charts submitted herewith and the disclosures and teachings further cited below. Each cited disclosure evidences a teaching that a person of ordinary skill in the art would have considered relevant, and each cited disclosure may be relied upon as evidence of a teaching, suggestion, or motivation to combine the subject matter of the disclosure with other reference disclosures. Persons of ordinary skill in the art would have been motivated to combine these teachings of these references accordingly with the other references addressed herein to the extent they are not found to disclose this feature.

Defendant reserves the right to modify this disclosure upon further information, discovery, and analysis as the case progresses.

(5) “IT Data” References (’088 patent)

The asserted claims of the ’088 patent recite the limitation of “defining a first plurality of objects representing actors, facilities, physical security states, and network resources within a managed site comprising security components utilizing physical security data and information technology (IT) data,” as well as the related limitations of defining a second plurality of objects

representing actions, conditions, and references and constructing a rule from the objects through connectors that dictate process flow and “integrating the physical security data with the information technology (IT) data of an entity within the managed site.” Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, this subject matter was well-known, routine, conventional, and widely available long before the alleged invention. As the attached claim charts demonstrate, this subject matter is disclosed in numerous references. For purposes of these contentions, references whose disclosures are cited in these contentions with respect to this claimed subject matter as reflected in the claim charts are hereby labeled the “**IT Data**” references.

The prior art demonstrates that a person of ordinary skill in the art would have been motivated to achieve the claimed limitations consistent with the claimed invention. Numerous references taught and motivated the desirability of defining objects representing actors, facilities, physical security states, and network resources within a managed site that includes security components utilizing physical security data and information technology (IT) data. It was well-known in the prior art that designers and builders of buildings and control systems to be installed in buildings, including commercial buildings such as offices and physical plants as well as residential buildings, desired to integrate and control a broad set of actors (for example, personnel), facilities, physical security states, and network resources using defined objects and rules, and could also take advantage of existing information technology (IT) resources and systems when defining and implementing security and control systems. IT data was well-known and routinely utilized in commercial buildings, for example, in connection with implementing networks used by businesses and employees including servers and personal computers used as workstations. Defining objects representing these various items, and using physical security and IT data, was a natural and well-

known component of system design and installation, for purposes including convenience, efficiency, and control for personnel involved with the systems, and consistent with the goals of integration and control.

These teachings are reflected in the disclosures of the references cited in these contentions, which Defendant may rely upon as part of demonstrating obviousness. Where a claim chart provided herewith cites a disclosure of a reference with respect to any one of these limitations, Defendant hereby also rely upon the same cited disclosure as teaching and/or suggesting each other limitation in this grouping, regardless of whether or not the claim chart also explicitly cites the same disclosure with respect to each other limitation in this grouping. Nothing about these claim limitations add anything novel or non-obvious over the prior art. To the contrary, such features were well-known, routine, conventional, and widely available before the alleged invention.

The use of these features as recited in the claims would have been obvious to a person of ordinary skill in the art least because doing so would have involved the combination of prior art elements according to known methods to yield predictable results, the simple substitution of one known element for another to obtain predictable results, the application of a known technique to a known device ready for improvement to yield predictable results, and/or would have been obvious to try. Moreover, a person of ordinary skill in the art would have readily appreciated the well-known and widespread use and disclosure of these subject matters and the motivation to implement them as suggested by the references.

Persons of ordinary skill in the art would have been motivated to combine the teachings of these references with the other references cited herein, in view of the foregoing considerations and those further reflected in the references. Defendant further hereby specifically incorporates by reference, and may rely upon for purposes of showing obviousness including motivations to

combine, the disclosures cited for each reference with respect to the relevant limitations as cited in the prior art claim charts submitted herewith and the disclosures and teachings further cited below. Each cited disclosure evidences a teaching that a person of ordinary skill in the art would have considered relevant, and each cited disclosure may be relied upon as evidence of a teaching, suggestion, or motivation to combine the subject matter of the disclosure with other reference disclosures. Persons of ordinary skill in the art would have been motivated to combine these teachings of these references accordingly with the other references addressed herein to the extent they are not found to disclose this feature.

Defendant reserves the right to modify this disclosure upon further information, discovery, and analysis as the case progresses.

d. Obviousness Combinations

The charts below disclose combinations of reference demonstrating that the Asserted Claims would have been obvious in light of the prior art cited. This is done by reference to the particular categories identified above. For each instance in which such a category is referenced, one or more of the references cited in that category (as identified above) may supply the claim element to which the category applies. The discussion above accompanying each category sets forth the detailed rationale and motivation for combining each category's respective references with respect to the claimed features they disclose.

Defendant identifies references in groups below, based on common subject matter relevant to the Asserted Claims, for the purpose of disclosing obviousness combinations and further disclosing motivations to combine.

Asserted Claims	Application of Prior Art
'704 claims 11-15	Obvious over the combination of each reference within the following combination groups:

Asserted Claims	Application of Prior Art
	• Normalizing Manufacturer Formatted Signals and/or • Access Privileges and/or • Visualization
'088 claims 15, 16, 17, 19, 20	Obvious over the combination of each reference within the following combination groups: • Normalizing Manufacturer Formatted Signals and/or • Visualization and/or • Access Privileges and/or • Network Resource Types and/or • IT Data

e. Secondary Considerations

Plaintiff bears the burden of establishing the existence of secondary considerations and the requisite nexus to the claimed inventions. To date, Plaintiff has not disclosed that any secondary considerations support any alleged non-obviousness of the Asserted Claims. To the extent that Plaintiff subsequently discloses any contention that any secondary considerations support a conclusion that any of the Asserted Claims are not obvious, Defendant reserves the right to respond, including to amend and/or supplement these Invalidity Contentions. Moreover, as these Invalidity Contentions demonstrate, none of the Asserted Claims address any need that was either long felt or unmet, nor were their results unexpected. To the contrary, the extensive invalidating prior art detailed above and in the claim charts show that before the patents-in-suit, the prior art techniques, designs, and systems were widely accepted, understood, and available. Finally, although secondary considerations may be relevant to the obviousness analysis, secondary considerations of nonobviousness cannot overcome the strong prima facie case of obviousness set forth in these Invalidity Contentions.

C. Invalidity Under Section 112 – Indefiniteness, Lack of Written Description, and/or Enablement

To be valid, a patent claim must “particularly point [] out and distinctly claim[] the subject matter which the inventor . . . regards as the invention.” 35 U.S.C. § 112(2). The Supreme Court has held that the proper standard for indefiniteness is as follows: “[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124, 189 L. Ed. 2d 37 (2014). The Supreme Court further explained that “a patent must be precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them.” *Id.* at 2129.

To uphold claims that do not clearly define the scope of the invention would thwart the ultimate purpose of the patent laws: to “promote the Progress of Science and useful Arts.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 730 (2002) (quoting U.S. Const. art. I, § 8, cl. 8). As the Supreme Court explained in *Festo*, a patent claim “is a property right; and like any property right, its boundaries should be clear. This clarity is essential to promote progress, because it enables efficient investment in innovation. A patent holder should know what he owns, and the public should know what he does not.” *Id.* The identified claim terms of Plaintiff’s Asserted Claims “fall[] within the innovation-discouraging ‘zone of uncertainty’ against which the Supreme Court has warned.” *Interval Licensing LLC v. AOL, Inc.*, 766 F. 3d 1364, 1374 (Fed. Cir. 2014), quoting *Nautilus*, 134 S. Ct. at 2130 (internal quotations and brackets omitted).

The Asserted Claims suffer from similar defects that may render them indefinite, at least under Plaintiff’s apparent view of the claim scope. Plaintiff’s Infringement Contentions further

indicate that Plaintiff may interpret the claims in a manner that further renders them indefinite, particularly in view of the absence of sufficient supporting disclosure in the intrinsic evidence.

Defendant also notes that the attached claim charts identify disclosures in the prior art that correspond to limitations of the Asserted Claims; in some cases, Defendant has identified prior art disclosures corresponding to limitations separately identified below as being potentially indefinite. The identification of corresponding disclosures in the prior art for such limitations should not be construed as a concession that Defendant believes those limitations fulfill the definiteness requirement or inform persons of ordinary skill in the art of the metes-and-bounds of the full scope of the alleged invention with reasonable certainty. Rather, Defendant's prior art disclosures are based on their best understanding (without the benefit of claim construction by the Court) informed by the Infringement Contentions served by Plaintiff, and in some cases, were chosen because they most closely mirror exemplary embodiments in the specifications of the Asserted Patents (and thus are likely to meet the disputed claim limitations in the event they are not adjudged to be indefinite).

In view of the foregoing, Defendant identifies below potential grounds of invalidity for indefiniteness, which Defendant reserves the right to present during claim construction proceedings and/or summary judgment proceedings in this action. Defendant provides these contentions without the benefit of upcoming claim construction discovery and other ongoing discovery. Defendant may provide proposed claim constructions to be adopted in the alternative to the extent certain claim terms and elements are not determined to be indefinite. Where a certain claim term or limitation in one claim is identified as indefinite, Defendant contends that the same claim term or limitation is indefinite in every instance the term or limitation is recited throughout the Asserted Claims. Where Defendant has identified a phrase as indefinite, Defendant also contends that the subparts of the phrase are indefinite within the context recited in the claim.

For the written description requirement, “the test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Possession requires a “show[ing] that the inventor actually invented the invention claimed.” *Id.* The “level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Id.* “[T]he purpose of the written description requirement is to ‘ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor’s contribution to the field of art as described in the patent specification.’” *ICU Medical, Inc. v. Alaris Medical Systems, Inc.*, 558 F. 3d 1368, 1376-79 (Fed. Cir. 2009) (citations omitted).

The Asserted Claims are invalid for lack of written description where indicated below, including under the reasoning of precedent such as *Ariad*, *ICU Medical*, *Synthes USA, LLC v. Spinal Kinetics, Inc.*, 734 F. 3d 1332, 1341-45 (Fed. Cir. 2013), *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F. 3d 1336, 1343-48 (Fed. Cir. 2005), *Liebel-Flarsheim Company v. Medrad, Inc.*, 358 F. 3d 898, 905-914 (Fed. Cir. 2004), and other case law, because the specification does not contain a written description of the claimed subject matter.

For example, in *LizardTech*, the claim was directed to a method of compressing digital images using seamless discrete wavelet transformation (“DWT”). The court found that the claim covered all ways of performing DWT-based compression processes that lead to a seamless DWT because there were no limitations as to how the seamless DWT was to be accomplished. However, the specification provided only one method for creating a seamless DWT, and there was no evidence that the specification contemplated a more generic way of creating a seamless array of

DWT coefficients. Therefore, the written description requirement was not satisfied in this case because the specification did not provide sufficient evidence that the inventor invented the generic claim. “[T]he description of one method for creating a seamless DWT does not entitle the inventor . . . to claim any and all means for achieving that objective.” *LizardTech*, 424 F.3d at 1346.

Similarly, in *ICU Medical*, the written description described the use of valves with a spike, but the patent applicant later prosecuted claims with a “spikeless” claim scope that “do not require a spike.” *ICU Medical*, 558 F.3d at 1377. As the Federal Circuit explained:

ICU’s asserted spikeless claims are broader than its asserted spike claims because they do not include a spike limitation; these spikeless claims thus refer to medical valves generically—covering those valves that operate with a spike and those that operate without a spike. But the specification describes only medical valves with spikes. See *supra* Part I. We reject ICU’s contention that the figures and descriptions that include spikes somehow demonstrate that the inventor possessed a medical valve that operated without a spike. Based on this disclosure, a person of skill in the art would not understand the inventor of the ‘509 and ‘592 patents to have invented a spikeless medical valve.

Id. at 1378. Because the specification did not disclose subject matter that operated without a spike, the Federal Circuit affirmed summary judgment of invalidity for failure to satisfy the written description requirement. *Id.* at 1379.

In *Synthes USA*, as further illustration, the written description described only certain subject matter including “a plurality of grooves and a plurality of channels, but did not describe ‘openings’ generally.” *Synthes USA*, 734 F.3d at 1341. The applicant broadened the claim scope during prosecution to a more general claim scope, in an attempt to read the claims on a competitor’s product. *Id.* A jury found invalidity for lack of written description, and the Federal Circuit affirmed. The Federal Circuit found that the evidence supported a finding that “the as-filed disclosure did not demonstrate possession of an intervertebral implant that employed *any sort of*

openings *anywhere* on the cover plates.” *Id.* (emphasis in original). The Federal Circuit noted that the written description “never discloses anything broader than using grooves to anchor the fiber system to the cover plates.” *Id.*

The “enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation.” *Auto. Techs. Int’l, Inc. v. BMW of N. Am.*, 501 F.3d 1274, 1282 (Fed. Cir. 2007). A claimed invention may be invalid under for lack of written description and non-enablement even if it was disclosed in the prior art: “It is the specification, not the knowledge of one skilled in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement.” *Genentech v. Novo Nordisk*, 108 F.3d 1361, 1366 (Fed. Cir. 1997). The patentee is “required to provide an adequate enabling disclosure in the specification; it cannot simply rely on the knowledge of a person of ordinary skill to serve as a substitute for the missing information in the specification.” *Alza Corp. v. Andrx Pharms., LLC*, 603 F. 3d 935, 940-41 (Fed. Cir. 2010). “A patentee who chooses broad claim language must make sure the broad claims are fully enabled.” *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 999-1000 (Fed. Cir. 2008). As the Federal Circuit has explained:

Enablement serves the dual function in the patent system of ensuring adequate disclosure of the claimed invention and of preventing claims broader than the disclosed invention. This important doctrine prevents both inadequate disclosure of an invention and overbroad claiming that might otherwise attempt to cover more than was actually invented. Thus, a patentee chooses broad claim language at the peril of losing any claim that cannot be enabled across its full scope of coverage.

MagSil Corp. v. Hitachi Global Storage Technologies, 687 F. 3d 1377, 1381 (Fed. Cir. 2012). “The specification must contain sufficient disclosure to enable an ordinarily skilled artisan to make and use the entire scope of the claimed invention at the time of filing.” *Id.* at 1381-82.

The claims are invalid for enablement because the written descriptions do not enable the full scope of the claimed subject matter. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371 (Fed. Cir. 2007); *Automotive Techs.*, 501 F.3d at 1284-85; *Sitrick*, 516 F.3d at 999-1000; *MagSil*, 687 F. 3d at 1380-81. In *Liebel-Flarsheim*, for example, the claimed invention was a front-loading fluid injector system with a replaceable syringe capable of withstanding high pressure for delivering a contrast agent to a patient. *Liebel-Flarsheim*, 481 F.3d at 1373. The claims were construed to cover systems with or without a pressure jacket, but the written description failed to enable “both injector systems with and without a pressure jacket.” *Id.* at 1285.

Similarly, in *Automotive Techs.*, the claims covered “both mechanical and electronic side impact sensors,” but the specification failed to enable the full scope: “in order to fulfill the enablement requirement, the specification must enable the full scope of the claims that includes both electronic and mechanical side impact sensors, which the specification fails to do.” *Automotive Techs.*, 501 F.3d at 1285.

In *Sitrick*, the claims were broad enough to cover integrating signals into pre-existing media: “Because the asserted claims are broad enough to cover both movies and video games; the patents must enable both embodiments.” *Sitrick*, 516 F.3d at 999-1000. The specification failed to enable embodiments using movies: “one skilled in the art could not take the disclosure in the specification with respect to substitution or integration of user images in video games and substitute a user image for a pre-existing character image in movies without undue experimentation.” *Id.* at 1000. *See also, e.g., MagSil*, 687 F.3d at 1381-84 (the claims covered a broad range of resistive charge that the written description did not enable); *Alza*, 603 F. 3d at 940-943 (“ALZA’s patent specification does not enable the full scope of the claims, namely non-osmotic oral dosage forms with ascending release rates”).

In view of the foregoing, Defendant identifies below the following grounds of invalidity under § 112. Defendant provides these contentions without the benefit of upcoming claim construction discovery and other ongoing discovery. These § 112 contentions reflect that Plaintiff's apparent asserted scope of the claim language as reflected in Plaintiff's initial Infringement Contentions suggests a broader scope than the specification sufficiently supports, though at this stage Plaintiff has not yet disclosed their claim construction positions to be disclosed in upcoming claim construction discovery. Discovery is in its early stages, and Defendant's analysis and investigation continues. Defendant accordingly reserves the right to amend these disclosures in view of further discovery, information, and/or analysis.

Where a certain claim term or limitation in one claim is identified as being subject to a § 112 invalidity defect, Defendant contends that the same claim term or limitation, and each constituent phrase and term containing substantially the same claim limitation, is subject to the same defect in every instance the term or limitation is recited throughout the Asserted Claims. Furthermore, each ground of invalidity under § 112 for any identified claim also applies to any asserted claim that depends from it.

As explained in the table below, the Asserted Claims are invalid for lack of enablement and/or lack of written description, and potentially indefinite, at least for the reasons below. Claim construction disclosures have not yet commenced. Defendant reserves the right to supplement these contentions in view of further discovery, information, and analysis.

Claim(s)	Limitation / Term	Grounds of § 112 Invalidity Challenge
'704 claims 11-15	"integration module" and "accepting sensor data from each security sensor an integration module including an agent for each type of security sensor"	Deficient written description and/or enablement of full scope, and potentially indefinite due to lack of reasonable certainty as to the scope and meaning of the claim language. While the specification refers to integration, it does not sufficiently describe and enable the

Claim(s)	Limitation / Term	Grounds of § 112 Invalidity Challenge
		full scope of the claimed “integration module” limitation in the context of the claim language. Furthermore, to the extent construed as a means-plus-function element, the “integration module” would not be supported by sufficiently definite structure in the specification.
’704 claims 11-15	“each sensor type configured to respond to a corresponding type of actionable event, each sensor type provided by a different manufacturer of a plurality of manufacturers” and “wherein the sensor data from each security sensor is embodied in a native data representation format of each respective manufacturer of the plurality of manufacturers”	Deficient written description and/or enablement of full scope. While the specification refers to manufacturers, for example in the context of background prior art (’704 col. 1:53-56), it does not adequately describe or enable the full scope of the claim language in the context of the claims. In addition, this claim language was not present in the originally-filed claims, and was added as part of an amendment to purportedly distinguish prior art.
’704 claims 11-15	“generating unique physical access privileges and credentials to exclusively map a defined user profile to a spatial hierarchy of physical sites along with security devices of the system, wherein the unique physical access credentials maintain a common representation of the user’s identity across the plurality of sites”	Deficient written description and/or enablement of full scope. The specification discusses access privileges and credentials, but does not adequately describe or enable the full scope of the claim language in the context of the claims. In addition, this claim language was not present in the originally-filed claims, and was added as part of an amendment to purportedly distinguish prior art.
’704 claims 11-15	“. . . the common data representation format including a data object and processing information for the sensor data”	Deficient written description and/or enablement of full scope. The specification discusses representing data in common standard format, but does not adequately describe or enable the full scope of the claim language in the context of the claims including a format that includes a data object and processing information for the sensor data. In addition, this claim language was not present in the originally-filed claims, and was amended into the claim language as issued as part of an amendment to purportedly distinguish prior art.

Claim(s)	Limitation / Term	Grounds of § 112 Invalidity Challenge
'088 claims 15, 16, 17, 19, 20	"[defining a first plurality of objects representing actors, facilities, physical security states, and network resources within a managed site comprising security components utilizing physical security data and information technology (IT) data] . . . the network resources comprising HVAC, lighting, building, video, alarms, identity management, and event security system components"	Deficient written description and/or enablement of full scope. The specification discusses makes reference to various types of systems, including in the Background section (for example, '088 col. 2:1-25), but does not adequately describe or enable the full scope of the claim language in the context of the claimed invention with a managed site whose network resources comprise HVAC, lighting, building, video, alarms, identity management, and event security system components. In addition, this claim language was not present in the originally-filed claims, and was added by an Examiner's Amendment as a purported basis for allowance over the prior art of record.
'088 claims 15, 16, 17, 19, 20	"[receiving a plurality of signals from disparate security devices distributed throughout the site,] wherein each signal of the plurality of signals is formatted in accordance with a proprietary format defined specifically for a device specified by a manufacturer of each respective security device"	Deficient written description and/or enablement of full scope. The specification discusses makes reference to manufacturers, including in the Background section (for example, '088 col. 1:51-54), but does not adequately describe or enable the full scope of the claim language in the context of the claimed invention where each of a plurality of signals from disparate security devices distributed throughout the site is formatted in accordance with a proprietary format defined specifically for a device specified by a manufacturer of each respective security device. In addition, this claim language was not present in the originally-filed claims, and was added by amendment.
'088 claims 15, 16, 17, 19, 20	"single integration layer component"	Deficient written description and/or enablement of full scope, and potentially indefinite due to lack of reasonable certainty as to the scope and meaning of the claim language. While the specification refers to integration, it does not sufficiently describe and enable the full scope of the claimed "single integration layer component" limitation in

Claim(s)	Limitation / Term	Grounds of § 112 Invalidity Challenge
		the context of the claim language. Furthermore, to the extent construed as a means-plus-function element, the “single integration layer component” would not be supported by sufficiently definite structure in the specification.

D. Ineligible Subject Matter Under Section 101

Section 101 provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). “[S]uch discoveries are manifestations of...nature, free to all men and reserved exclusively to none.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012) (quotations and citations omitted). The concern that underlies “this exclusionary principle” is “one of preemption.” *Alice*, 134 S. Ct. at 2354. Thus, patents that seek to preempt others from using “the basic tools of scientific and technological work” are invalid. *Id.*

The Supreme Court in *Alice* set forth a two-step test “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355.

1. First, the Court must “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” such as an abstract idea. *Id.* If the Court determines that the claims are directed to a patent-ineligible concept such as an abstract idea, then:

2. The Court must “consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application.” *Id.* (citation and quotation marks omitted). The Supreme Court describes this second step “as a search for an inventive concept—*i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.” *Id.* (quotation marks and brackets omitted). For example, “[s]tating an abstract idea while adding the words ‘apply it’ is not enough for patent eligibility. Nor is limiting the use of an abstract idea ‘to a particular technological environment.’” *Id.* at 2358 (internal citations and quotations omitted).

Each and every Asserted Claim is invalid under 35 U.S.C. § 101 and applicable case law authority. *See, e.g., Alice*, 134 S. Ct. at 2354; *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 719 (Fed. Cir. 2014); *BuySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347-48 (Fed. Cir. 2015); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093 (Fed. Cir. 2016); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017); *Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1267-68 (Fed. Cir. 2016); *BSG Tech v. Buyseasons*, 899 F.3d 1281, 1287 (Fed. Cir. Aug. 15, 2018); *SAP America v. InvestPic*, 898 F.3d 1161, 1168 (Fed. Cir. 2018); *Burnett v. Panasonic*, No. 2018-

1234, 2018 WL 3434533, at *5 (Fed. Cir. July 16, 2018); *In re Villena*, No. 2017-2069, 2018 WL 4145863, at *2 (Fed. Cir. Aug. 29, 2018); *Interval Licensing v. AOL*, 896 F.3d 1335, 1338, 1345-48 (Fed. Cir. 2018); *Intellectual Ventures I v. Symantec*, No. 2017-1814, 2018 WL 1324863, at *1, n.1 (Fed. Cir. Mar. 15, 2018); *Zuili v. Google*, No. 2017-2161, 2018 WL 798666, at *2 (Fed. Cir. Feb. 9, 2018); *WhitServe v. Donuts*, 809 Fed. Appx. 929, 932 (Fed. Cir. 2020); *Elec. Commc'n Techs. v. ShoppersChoice.com*, 958 F.3d 1178, 2020 WL 2479692, at *1-2 (Fed. Cir. 2020); *Dropbox v. Synchronoss Techs.*, 815 F. App'x 529, 533 (Fed. Cir. 2020); *Am. Axle & Mfg. v. Neapco Holdings*, 967 F.3d 1285, 1295 (Fed. Cir. 2020); *Chamberlain Grp. v. Techtronic Indus.*, 935 F.3d 1341, 1348 (Fed. Cir. 2019), *cert. denied*, 2020 WL 5882260 (2020); *Innovation Scis. v. Amazon.com*, 778 F. App'x 859, 863 (Fed. Cir. 2019); *Ameranth v. Domino's Pizza*, 792 Fed. App'x 780, 788 (Fed. Cir. 2019); *ChargePoint v. SemaConnect*, 920 F.3d 759, 766 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 983 (2020); *SAP Am. v. Investpic*, 898 F.3d 1161, 1166 (Fed. Cir. 2018); *Voter Verified v. Election Sys. & Software*, 887 F.3d 1376, 1384 (Fed. Cir. 2018); *BSG Tech v. Buyseasons*, 899 F.3d 1281, 1290 (Fed. Cir. 2018); *Glasswall Sols. v. Clearswift*, No. 2018-1407, 2018 WL 6720014, at *2 (Fed. Cir. Dec. 20, 2018); *Interval Licensing v. AOL*, 896 F.3d 1335, 1346 (Fed. Cir. 2018); *Smartflash v. Apple*, 680 Fed. Appx. 977, 983 (Fed. Cir. 2018); *Location Based Services v. Niantic*, 295 F. Supp. 3d 1031, 1040, 1045-49 (N.D. Cal. 2017), *aff'd* 742 Fed. Appx. 506 (Fed. Cir. 2018).

Similar to claims previously found unpatentable by the Federal Circuit, the Asserted Claims here are each ineligible under § 101. At step one, courts consider “what the patent asserts to be the focus of the claimed advance over the prior art” to “determine whether the claim’s character as a whole is directed to ineligible subject matter.” *Simio, LLC v. FlexSim Software Prods., Inc.*, 983 F.3d 1353, 1359 (Fed. Cir. 2020) (citations and internal quotations omitted). For

computer-related claims, courts determine whether the claims focus on a “specific means or method that improves the relevant technology,” which may pass muster under § 101, or on a “result or effect that itself is the abstract idea and merely invokes generic processes and machinery,” which cannot. *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016) (internal quotation marks and citation omitted). “[T]o be directed to a patent-eligible improvement to computer functionality, the claims must be directed to an improvement to the functionality of the computer or network platform itself.” *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020).

Here, the asserted claims are directed to an abstract idea. “An abstract idea can generally be described at different levels of abstraction.” *Ameranth*, 842 F.3d at 1240. At one level of abstraction, the asserted claims of the ’704 patent are directed to an abstract idea relating to gathering, analyzing, and communicating information, including integrating data from different sensors using a common format, generating access privileges and credentials, defining security policies, and applying rules to received information. Similarly, the asserted claims of the ’088 patent are directed to an abstract idea relating to gathering, analyzing, and communicating information, including defining objects, receiving and normalizing information from security devices, building a continually updated security state, and applying rules and policies to received information. The same types of functions are performed by humans in everyday life, such as by security guards who can keep track of individuals and their access rights and activities, as well as non-human objects and physical spaces, mentally and/or with pen and paper.

At a higher level of abstraction, the asserted claims of the ’704 and ’088 patents are directed to an abstract idea of gathering, analyzing, and communicating information. The steps recited in each claimed method are directed to variations on gathering information, analyzing it, and/or

communicating it. It is well-settled that these types of claims directed to gathering, analyzing, and communicating information are not patent-eligible. *Elec. Comm’n Techs., LLC v. ShoppersChoice.com, LLC*, 958 F.3d 1178, 1182 (Fed. Cir. 2020); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353-54 (Fed. Cir. 2016). “Information as such is an intangible, hence abstract.” *SAP Am. Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018) (citation omitted). “As many cases make clear, even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *Id.* at 1168 (quoting *Elec. Power*, 830 F.3d at 1353).

In addition, nothing in the claims describes how to achieve their desired results in a non-abstract way. *Two-Way Media Ltd. v. Comcast Cable Comm’ns, LLC*, 874 F.3d 1329, 1338-39 (Fed. Cir. 2017) (holding claims directed to routing information to be abstract because they “[did] not sufficiently describe how to achieve these results in a non-abstract way”). The claims, like those in *Two-Way Media*, are devoid of details on “how to engineer or program” the underlying components and recite only “result-based” functional aspirations. *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1343-45 (Fed. Cir. 2018). The claims “do not enable computers to operate more quickly or efficiently, nor do they solve any technological problem.” *Customedia*, 951 F.3d at 1365. They recite only “essentially result-focused, functional” language that fails to provide “the specificity required to transform [the] claim from one claiming only a result to one claiming a way of achieving it.” *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1296-97 (Fed. Cir. 2020) (citation omitted). “Merely claiming those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance, does not make a claim eligible at step one.” *Ericsson Inc. v. TCL Comm. Tech. Holdings Ltd.*, 955 F.3d 1317, 1328 (Fed. Cir. 2020) (citation and internal quotations omitted). The claims reside in the

“familiar class of claims that do not focus on an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.” *SAP Am.*, 898 F.3d at 1168.

The specifications further confirm that the claimed inventions are directed to abstract ideas. *See ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 767 (Fed. Cir. 2019) (“[w]hile ‘[t]he § 101 inquiry must focus on the language of the Asserted Claims themselves,’” the specification may be useful “to understand ‘the problem facing the inventor’ and, ultimately, what the patent describes as the invention.”). The specifications of the asserted patents teach that the ideas are to be implemented using generic and conventional components and technologies, without describing any improved new technology or improvement to underlying technology. *See, e.g.*, ’704, col. 3:44-4:2, 4:49-64, 6:1-50, 18:8-19:19; ’088, col. 4:6-21, 5:1-16, 6:20-7:2, 25:25-26:5.

The Asserted Claims do not fare better with *Alice* Step Two, as they do not provide any inventive concept beyond the abstract idea itself. The claims do not recite significantly more than the abstract idea, and reflect generic and conventional electronic components such as generic camera, monitor, processor, and functional “device” components in order to achieve desired functional results including the recited functions and method steps. *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1291 (Fed. Cir. 2018). The patents’ specifications confirm the absence of any inventive concept beyond the abstract idea. *See, e.g.*, ’704, col. 3:44-4:2, 4:49-64, 6:1-50, 18:8-19:19; ’088, col. 4:6-21, 5:1-16, 6:20-7:2, 25:25-26:5.

E. Other Prior Art

In addition to the prior art references that Defendant has specifically discussed in these Invalidity Contentions, Defendant provides notice to Plaintiff of each reference produced in the accompanying document production of the same date. Plaintiff can review these references to discern and account for their additional relevant disclosures, background knowledge, and teachings

reflecting the knowledge that was previously known in the prior art. To the extent not specifically cited and relied upon as invalidating references with respect to the elements of the Asserted Claims, Defendant reserves the right to rely on these references at least as illustrating background knowledge in the field prior to the alleged inventions of the Asserted Claims and for other relevant purposes as may be disclosed pursuant to Defendant's continuing research and analysis of the Asserted Claims, accused instrumentalities, and the prior art.

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