UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COXCOM, LLC,
Petitioner

v.

JOAO CONTROL & MONITORING SYSTEMS, LLC,
Patent Owner

CASE IPR: Unassigned

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,549,130 UNDER 35 U.S.C. §§311-319 AND 37 C.F.R. §§ 42.1-.80 & 42.100-.123

Mail Stop **Patent Board**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

LIST OF EXHIBITS

The following is a list of exhibits in support of this petition:

EX-1001	U.S. Patent No. 6,549,130
EX-1002	Declaration of Richard Bennett
EX-1003	*Curriculum Vitae* of Richard Bennett
EX-1004	March 1996 Application
EX-1005	File History Excerpts from the '130 Patent
EX-1006	Excerpt from Merriam-Webster Dictionary (10th ed. 1995)
EX-1007	Excerpt from Concise Dictionary of Engineering: A Guide to the Language of Engineering (2014)
EX-1008	U.S. Patent No. 5,875,430 to Koether et al., ("Koether")
EX-1009	U.S. Patent No. 5,805,442 to Crater et al., ("Crater")

I. INTRODUCTION

CoxCom LLC ("Petitioner") respectfully requests *inter partes* review under 35 U.S.C. § 311 and 37 C.F.R. § 42.100 of claims 1, 8, 10, 12, 15, 17, 98, 119, 124, 145 and 149 ("the Challenged Claims") of U.S. Patent No. 6,549,130 ("the '130 Patent"), titled "Control and/or Monitoring Apparatus and Method" (Ex. 1001). The '130 Patent is believed to be owned by Joao Control & Monitoring Systems, LLC ("Joao" or "Patent Owner").

The '130 patent purports to solve a need for an improved premise security system that "conveniently and effectively enable[s] one to exercise and/or to perform control, monitoring and/or security functions . . . [by] owners, occupants and/or other authorized individuals to exercise and/or to provide control, monitoring and/or security functions over these premises, from a remote location and at any time." Ex. 1001 at 2:67-3:6. Systems for the control, monitoring, diagnosis, dispatch, and repair of a premises from a remote location, however were previously disclosed in a number of prior art references.

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

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

Pursuant to Rule 42.8(a)(1), the real party in interest for this Petition is CoxCom, LLC, a wholly owned subsidiary of Cox Communications, Inc.

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

Below is a chart listing the proceedings brought by the assignee, Joao that may affect, or be affected, by a decision in the proceeding.

CASES	NUMBER	DISTRICT
Joao v. LifeShield, Inc.	2-15-cv-02772	PAED
Joao v. Telular Corporation	1-14-cv-09852	ILND
Joao v. Mobile Integrated Solutions, LLC	2-14-cv-02643	AZD
Joao v. Comverge, Inc.	1-14-cv-03862	GAND
Joao v. Slomin's, Inc.	2-14-cv-02598	NYED
Joao v. Cox Communications, Inc.	1-14-cv-00520	DED
Joao v. Nissan North America, Inc.	1-14-cv-00523	DED
Joao v. Verizon Communications, Inc.	1-14-cv-00525	DED
Joao v. Time Warner Cable, Inc.	1-14-cv-00524	DED
Joao v. Consolidated Edison, Inc.	1-14-cv-00519	DED
Joao v. Volksvagen Group of America, Inc., et al.	1-14-cv-00517	DED
Alarm.com Incorporated v. Joao	1-14-cv-00284	DED
Joao v. Protect America, Inc.	1-14-cv-00134	TXWD
Joao v. FrontPoint Security Solutions LLC	1-13-cv-01760	DED
Joao v. Chrysler Corporation	4-13-cv-13957	MIED
Joao v. Ford Motor Company	4-13-cv-13615	MIED
Joao v. Lowe's Companies, Inc.	5-13-cv-00056	NCWD
Joao v. Vivint Inc.	1-13-cv-00508	DED
Joao v. Chrysler Corporation	1-13-cv-00053	NYSD
Joao v. Ford Motor Company	1-12-cv-01479	DED
Joao v. City of Yonkers	1-12-cv-07734	NYSD
Joao v. Ford Motor Company	4-12-cv-14004	MIED
Joao v. Xanboo, Inc., et al.	2-12-cv-03698	CACD

Joao of California, LLC v. Sling Media, Inc., et al.	3-11-cv-06277	CACD
Joao of California, LLC v. ACTI Corporation Inc., et al.	8-10-cv-01909	CACD

C. Lead and back-up counsel under 37 C.F.R. § 42.8(b)(3)&(4)

Petitioners designate the following counsel and provide service information in accordance with 37 C.F.R. § 42.8(b)(3)&(4). Pursuant to 37 C.F.R. § 42.10(b), Powers of Attorney accompany this Petition.

For CoxCom, LLC	
Lead Counsel	**Back-Up Counsel**
Mitchell G. Stockwell (Reg. No. 39,389) mstockwell@kilpatricktownsend.com	D. Clay Holloway (Reg. No. 58,011) choloway@kilpatricktownsend.com
Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street NE, Suite 2800 Atlanta, GA 30309-4528 Phone: (404) 532-6959 Fax: (404) 541-3258	

III. PAYMENT OF FEES

Payment of the required $23,000 fee for this Petition accompanies this Petition. Any additional fees associated with this Petition may be charged to Deposit Acct. No. 20-1430.

IV. REQUIREMENTS FOR *INTER PARTES* REVIEW

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

Petitioner certifies that (1) the '130 Patent is available for *inter partes* review and (2) Petitioner is not barred or estopped from requesting *inter partes* review of the claims of the '130 Patent on the grounds identified in this Petition.

B. Identification of challenge and relief requested - 37 C.F.R. § 42.104(b)

Petitioners request cancellation of claims 1, 8, 10, 12, 15, 17, 98, 119, 124, 145 and 149 of the '130 Patent in view of the following grounds: Ground 1 – Claims 1, 8, 12, 15, 17, 98, and 145 Are Obvious over Koether in Light of the Knowledge of the Ordinary Skilled Artisan; and Ground 2 – Claims 10, 15, 119 and 124 Are Obvious over Koether in Light of Crater and/or the Knowledge of the Ordinary Skilled Artisan

V. BACKGROUND OF THE TECHNOLOGY AND PURPORTED INVENTION OF THE '130 PATENT

A. Background of the technology

The '130 patent explains "[a]nti-theft devices for vehicles and premises are known in the prior art for preventing and/or thwarting the theft of a vehicles and/or of a premises." (Ex. 1001, 1:34-36.) Obviously as technology improvements, specifically the transition to electronic and digital connectivity, were made such advances were incorporated into alarm systems as evidenced, in part, by U.S. Patent No. 3,449,738 to Chesnul et al. (issued: June 10, 1969) entitled "Electronic Security System" and directed to a home electronic security system that "us[es] modern digital, solid-state circuitry [to] is easily put into individual modules thereby facilitating installation, maintenance, and expansion of the system." Chesnul, 1:25-29.

The use of electronic data transfer was yet another logical transition for alarm and anti-theft systems as it allowed for the centralization and remote monitoring of a premises or device. As explained below, not only was this the next logical step, it actually occurred before the '130 patent was sought.

B. Summary of the prosecution history of the '130 Patent

During prosecution of the application that led to the '130 patent, the claims were rejected as anticipated and obvious over U.S. Patent No. 6,028,537 to Suman et al. Ex. 1005 at JCCOX-003963-03975. The Suman reference described a remotely controlled vehicle system. The Examiner reasoned that Suman taught "a vehicle communications and remote control system can be used on a premises" having "RKE receiver 1855 (first control device) responsive to the received RF signal from a system controller 1810 (second control device) having a micro-controller 1830 for to open/close garage door, gates, to activate/deactivate house light modules, house appliances and to activate/deactivate door locks[, and the] micro-controller 1830 is response to a remote RF transmitter/receiver 1825 (third control device)." *Id.* at JCCOX-003965. To overcome this, Joao argued with no support that the claims were entitled to priority ahead of Suman. As shown below, the Challenged Claims are not entitled to a filing date before July 1996.

During prosecution of the application that led to the '130 patent, there were several amendments to the claims, the specification, and figures. The Examiner

allowed the claims because in the Examiner's view the claims required a three control device system and the prior art before the Examiner only taught two devices:

> [T]here are no references teaching of a control apparatus for controlling of at least one activating, deactivating, enabling and disabling of at least one of a premises having at least one of system, subsystem, component, equipment and appliance. Wherein the first control device is responsive to a second signal and the second signal is at least generated by a a [sic] second control device which is located remote from the premises. And further wherein the second control device is responsive to a third control signal which is generated by a third control device which is located at a location remote from the premises and remote from the second control device.

Ex. 1005 at JCCOX-004079, JCCOX 004074-04076. Joao Responded to the Reasons for Allowance in essence copying the claim language. *Id.* at 04520-04542. As explained below, the art the Examiner was not aware of did, in fact, teach the three devices recited in the claims.

C. Summary of the Challenged Claims

The Challenged Claims contain several common elements relating to the functionality and the physical location of the various control devices described in the

Notice of Allowance. For claims 1, 8, 10, 12, 15, 17, 98, 119, 124, 145 and 149 a summary of these common elements is presented below:

- A **first control device**: (i) located at the premises, (ii) generates a first signal to activate and control an operation of the premise device, and (iii) generates and transmits the first signal in response to a second signal that is automatically received.
- A **second control device**: (i) located remote from the premises and (ii) generates and transmits a second signal to the first processing device in response to a third signal that is automatically received.
- A **third control device**: (i) located remote from the premise and remote from the second control device, and (ii) generates and transmits a third signal to the second processing device.

The above simplification of the three claimed processing devices and flow of signals, along with additional detailed disclosures rendering the Challenged Claims unpatentable, was disclosed in prior art not considered by the U.S. Patent and Trademark Office in allowing the claims.

Claim 149 describes a method of transmitting signals for control and operation of a premises device involving the three control devices. Although the sequence of transmission among the three control devices is claimed differently in claim 149, the concept described in the claim is very similar.

D. Statement of Non-redundancy

This petition asserts the obviousness of the identified claims based on two references plus the knowledge of the skilled artisan at the relevant time period: Koether and Crater. Neither of these references was before the Patent Office during original prosecution and neither was part of any *inter partes* review petition filed by, or on behalf of, Petitioner. The grounds detailed below are based primarily on the Koether reference but for claim elements specifically requiring recording and transmission of video information, to the extent it would not have been obvious given Koether's own disclosure, the Crater reference is used to demonstrate what the skilled artisan would have known at the time the Challenged Claims were added.

VI. CLAIM CONSTRUCTION - 37 C.F.R. § 42.104(b)(3)

The '130 Patent expired on June 8, 2013, and is therefore not subject to amendment. The claims are thus construed pursuant to *Phillips v. AWH Corp.*, 415 F.3d 1303, 1327 (Fed. Cir. 2005) (holding words of a claim "are generally given their ordinary and customary meaning" as understood by a person of ordinary skill in the

art in question at the time of the invention). *See* IPR2013-00065, Paper 11 at 10; MPEP 2258(I)(G).

The terms of the Challenged Claims have a well-understood meaning. Therefore, Petitioner submits the plain and ordinary meaning of the terms of the Challenged Claims applies. Petitioner is aware, in its ongoing litigation, Joao has provided constructions for certain terms of the '130 Patent which are inconsistent with the plain and ordinary meaning of the terms or the intrinsic record of the '130 Patent, as discussed in relevant part below. Many of these constructions are based on litigation-driven, unsolicited statements submitted to the PTO during the prosecution of related patents. Because Petitioner expects the Patent Owner may address certain claim terms in response to this Petition, Petitioner has discussed the claim construction of some terms of the Challenged Claims below. Because in an IPR, petitioners are not authorized to challenge claims under 35 U.S.C. § 112, Petitioner does not raise such a challenge here. Petitioner, however, reserves the right to raise Section 112 issues in this or any other proceeding as appropriate.

A. "First Signal," "Second Signal," and "Third Signal"

The plain and ordinary meaning of "first signal," "second signal," and "third signal" is well understood. No construction of these terms is necessary. "The use of the terms 'first' and 'second' is a common patent-law convention to distinguish between repeated instances of an element or limitation." *3M Innovative*

Properties, Co. v. Avery Dennison Corp., 350 F.3d 1365, 1371 (Fed. Cir. 2003).

Alternatively, Petitioner proposes a proper construction is that a "first signal" is a "signal sent by a first control device," a "second signal" is a "signal sent by a second control device," and a "third signal" is a "signal sent by a third control device." This construction reflects the plain and ordinary meaning of the terms as recited in the claims.

In litigation, Joao argued the "first signal," "second signal," and "third signal" should be construed as "each different signals with content that is not identical to the content of the other signals." That is, Joao contended the modifiers "first," "second" and "third" reflect unique content of the signals, rather than simply an enumeration of one signal from another. This position is incorrect because it seeks to ascribe specific content to each signal, where no content is required by the plain meaning of the terms, and the specification and the prosecution history of the '130 Patent do not suggest the limitations should be redefined in this manner. The terms "first," "second," and "third" simply enumerate each signal, and do not indicate unique content for each signal.

B. "Automatically Received"

The plain and ordinary meaning of "automatically" is "functioning without human intervention." Ex. 1007 at 26. This is the proper construction for "automatically received."

The claims of the '130 Patent describe a signal as being received automatically by a control device. The '130 Patent does not specifically discuss how signals are automatically received. The specification simply explains apparatuses may be activated automatically based on pre-programmed conditions, such that no operator intervention is necessary. Ex. 1001 at 44:13-18 ("the apparatus will be programmed to become activated, or de-activated, automatically, such as upon the occurrence, or lack thereof, of a pre-defined event or occurrence and/or at any desired time"); 48:37-39 ("apparatus 950 may be designed to operate and/or perform any and all of the described functions automatically and without operator intervention").

The prosecution history of the '130 Patent is in accord with this construction. In a number of preliminary amendments submitted when prosecution was reopened after allowance, the patentee stated "the term 'automatically' means 'without human intervention'." Ex. 1005 at JCCOX-004218.

C. "At least one of activating, de-activating, disabling, and reenabling"

While the claim term "activating" is part of a larger phrase, *i.e.*, "at least one of activating, de-activating, disabling, and re-enabling," this phrase is disjointed and only requires one of the actions be met to satisfy the claims. As such, Petitioner proposes a construction for the term "activating." The plain and ordinary meaning of "activating" is "to make active or more active." Ex. 1006 at 3. The claims of the '130 Patent describe a signal and processing device capable of, among other things,

activating at least one of a premises system, device, equipment, equipment system, or an appliance. The '130 Patent does not specifically discuss how any of these components are activated. The specification simply explains premises components may be disabled or re-enabled so as to maintain desired conditions in the premises. *See, e.g.*, Ex. 1001 at 66:31-42. Thus, there is no indication in the claims or the specification that the term "activating" should be construed in any way other than the term's plain and ordinary meaning which is "making active or more active."

VII. PERSON HAVING ORDINARY SKILL IN THE ART

For purposes of this proceeding, Petitioner asserts a person of ordinary skill in the art of remote-controlled premise systems at the time of the alleged invention would have had a bachelor's degree in engineering or equivalent coursework and at least two years of experience in networked systems. Ex. 1002, ¶ 17.

VIII. THE CHALLENGED CLAIMS ARE NOT ENTITLED TO A PRIORITY DATE BEFORE JULY 18, 1996.

A patent's invention date is presumed its filing date. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 449 (Fed. Cir. 1986). A patentee may claim benefit of a priority date by "demonstrat[ing] that the claims meet the requirements of 35 U.S.C. § 120." In re NTP, Inc., 654 F.3d 1268, 1276 (Fed. Cir. 2011).

For Challenged Claims to be entitled to an earlier date of priority "[t]he test is whether the [earlier] disclosure conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Streck, Inc. v.*

Research & Diagnostic Sys., Inc., 665 F.3d 1269, 1285 (Fed. Cir. 2012) (internal citations omitted). This test requires an "objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Id.*

On its face, the '130 patent claims priority as a continuation of U.S. Patent Application No. 08/683,828, filed on July 18, 1996 ("the July 1996 application"), which is a continuation-in-part to U.S. Patent Application No. 08/622,749 filed on March 27, 1996 ("March 1996 application"). The '130 patent is not, however, entitled to the benefit of the March 27, 1996 application date.

Each of the Challenged Claims requires some processing device located at a premises. In contrast, the March 1996 application only discloses a vehicle theft deterrent system, and does not disclose a processing device located at a premises. *See* Ex. 1004. The March 1996 application does not contain Figures 15 and 16 of the '130 patent which discloses a premises and premise equipment. *Id.* Indeed, the March 1996 application never mentions a premise and is solely focused on vehicles. *Id.* Because a premises is not a vehicle and a vehicle is not a premises, the March 1996 application does not disclose a premises system. Therefore, the Challenged Claims are not entitled to the benefit of the March 1996 application filing date.

IX. HOW THE CHALLENGED CLAIMS ARE UNPATENTABLE

UNDER 37 C.F.R. § 42.104(b)[1]

A. Ground 1 – Claims 1, 8, 12, 15, 17, 98, and 145 Are Obvious over Koether in Light of the Knowledge of the Ordinary Skilled Artisan.

Koether (Ex. 1008) was filed on May 2, 1996 and issued on February 23, 1999. Because of its filing date, Koether is prior art to the Challenged Claims under 35 U.S.C. § 102(e). Koether was not disclosed or considered during the prosecution of the '130 patent. The following provides disclosure from Koether and an explanation of how the reference applies to each limitation of the claim. Petitioner does not assert the preambles of the Challenged Claims are limiting or non-limiting. Regardless, Koether discloses the features recited in each preamble.

Koether describes a Smart Commercial Kitchen. As the opening sentence of the Abstract states, Koether "provides a bi-directional communication network which provides real-time computer-aided diagnostics, asset history, accounting records, maintenance records and energy management." Ex. 1008. Figure 1 shows three processing devices connected wirelessly or over high speed data links. *Id.* at Fig. 1; 2:9-13. "In particular, the system monitors and tracks the maintenance and repair of

[1] Petitioners have enumerated each element of the Challenged Claims providing them with a unique identifier set forth before the element in brackets. Thus, for claim "X" the first element would be listed as [X.0], the next as [X.1], etc. These elements are cross-referenced throughout this Petition.

kitchen appliances by means of information transmitted to and received from those appliances over the data network." *Id.* at 2:13-16. "The control center may, if desired, control in real-time the normal operation for some or all of the kitchen or restaurant appliances." *Id.* at 3:5-7. "In this manner, retail food service chains may readily update the cooking profiles of their food products on a global basis." *Id.* at 3:10-12. Koether goes on to describe the use of the system to monitor device failure or degradation. *Id.* at 8:57-9:2 ("If the degradation, however, is gross, the control center may communicate and display on the console of the kitchen appliance a message warning that the kitchen appliance is unacceptable for cooking purposes. If desired, the control center may be programmed in the latter instance to disable the kitchen appliance to eliminate any possibly health risks."). Koether describes its control system in connection with a broad range of equipment, including fryers, ovens, cooling systems, HVAC systems and more. *Id.* at 1:19-23.

Koether teaches, or at the very least makes obvious, the apparatus capable of remotely monitoring and controlling a kitchen appliance as claimed in claims 1, 8, 12, 15, 17, 98, and 145:

Claim Language	Koether (Ex. 1008)
[1.0] "A control apparatus, comprising:"	*See, e.g.*, Ex. 1008 at Abstract; Fig. 1; 1:13-19 ("The present invention relates to … a cooking computer communication system, for monitoring and controlling the activities of commercial kitchen or restaurant appliances, and for providing bi-directional communication between such appliances and a

	control center.")
[1.1] "a first control device, wherein the first control device at least one of generates and transmits a first signal for at least one of activating, de-activating, disabling, and re-enabling, at least one of a premises system, a premises device, a premises equipment, a premises equipment system, and a premises appliance, of a premises,"	*See, e.g.*, Ex. 1008 at Fig. 1 (Appliances "A1-A11"); 4:26-27 ("Each kitchen appliance 110 (A1-A11) is preferably provided with a RF transmitter 10, RF receiver 130 and microprocessor based controller 140, as illustrated in Fig. 2."); 4:37-59 ("Microprocessor based controllers has been developed . . . to assist in the preparation of properly cooked foods. These controllers . . . regulate the temperature within the kitchen appliance to insure that the food is cooked or baked to the proper degree of doneness."); 4:52-59 ("Moreover, the controller regulates the percentage of time power is applied to the heating (or cooling) element …For example, the heating element or heating elements may be pulsed with either a fixed or variable duty cycle (proportional control heating), may be fully turned on, or operated in an on/off manner similar to a thermostat, depending in the heating mode of the kitchen appliance.")
[1.2] "wherein the first control device is located at the premises,"	*See, e.g.*, Ex. 1008 at 4:25-27 ("Each kitchen appliance 110 (A_1-A_{11}) is preferably provided with a RF transmitter 120, RF receiver 130 and microprocessor based controller 140, as illustrated in Fig. 2."); 4:30-32 ("Restaurants, bakeries or hotels, for example, can have anywhere from one to forty (40) kitchen appliances at a single site or cell.")
[1.3] "wherein the first control device is responsive to a second signal, wherein the second signal is at least one of generated by and transmitted from a second control device,"	*See, e.g.*, Ex. 1008 at Fig. 1; 5:3-8 ("With continuing reference to Fig. 1, kitchen base stations [second processing device] 150 (B1-B6) may be found within respective cells 105 (C1-C6). Preferably, each kitchen base station 150 (B1-B6) is capable of communicating through wireless means, such as through cellular radio or other wireless means, with corresponding kitchen appliances 110 (A1-

	A11)."); 7:30-32 ("Each appliance 110 receives burst modulated signals from kitchen base station 150…") 7:54-57 (Also, kitchen base stations 150 each includes a microprocessor 167 that controls the base stations and communication among the appliances and the kitchen base stations.")
[1.4] "wherein the second control device is located at a location which is remote from the premises,"	*See, e.g.*, Ex. 1008 at Fig. 1; 5:3-8 ("With continuing reference to Fig. 1, kitchen base stations [second processing device] 150 (B1-B6) may be found within respective cells 105 (C1-C6). Preferably, each kitchen base station 150 (B1-B6) is capable of communicating through wireless means, such as through cellular radio or other wireless means, with corresponding kitchen appliances 110 (A1-A11)."); 5:20-35 ("each of the cells 105 (C1-C6) is allocated at least one cellular radio channel use to effect bidirectional communication so as to monitor and track the maintenance, repair and energy management of kitchen appliances 110 (A1-A11) by means of information transmitted to and received from those appliances."); 7:45-50 ("Those skilled in the art will readily note that much of the equipment used by appliances 110 to effect cellular communication may also be used by kitchen base stations 150 and mobile kitchen center 200."); 5:55-59 ("Control center 170 may be, for example, located within the same physical location as the cells. For extended coverage around the world, however, a plurality of control centers linked to each other may be employed."); 15:20-23 ("wherein each of said base stations is associated with a radio coverage area or cell, such that restaurant appliances located within the same cell communicate with the same base station.").
[1.5] "wherein the second signal is transmitted from the second control	*See, e.g.*, Ex. 1008 at 5:60-67 ("Each kitchen base station 150 (B1-B6) may interrogate a

device to the first control device, and further wherein the second signal is automatically received by the first control device,"	corresponding controller 140 or controller 140 may request to transmit diagnostic information relating to the operating conditions of kitchen appliances (A1-A11), which diagnostic information may be immediately communicated to control center 170."); 6:6-8 ("Most of the functions are automatically controlled by the control center, but may also be performed manually by a control center operator."); 6:8-9 ("If desired, some of these functions can be distributed to the base stations"). 7:30-32 ("Each appliance 110 receives burst modulated signals from kitchen base station 150 through an antenna 550 connected to a receiver.).
[1.6] "wherein the second control device is responsive to a third signal, wherein the third signal is at least one of generated by and transmitted from a third control device,"	*See, e.g.*, Ex. 1008 at Fig. 1; 7:54-59 ("Also, kitchen base stations 150 each includes a microprocessor 167 that controls the activities of the base station and communication among the appliances and the kitchen base stations. Decisions are made by the microprocessor in accordance with the data received from the control center 170"). 5:36-38 ("Communication is provided between kitchen base stations 150 (B1-B6) and a control center 170 through communications links 175 of a data network 180."); 5:67-6:5 ("Control center 170 [communication device] may take action as appropriate, include, among other things, downloading updated diagnostic software to controller 140, dispatching a service vehicle 195 through a mobile kitchen center 200, or updating accounting and inventory information, which is discussed in more detail herein below."); 6:34-37 ("control center 170 may include a communication controller 215, and a display controller 220, there being a suitable conventional interface 225 therebetween.").
[1.7] "wherein the third control	*See, e.g.*, Ex. 1008 at Fig. 1; 5:55-59 ("Control

device is located at a location which is remote from the premises and remote from the second control device,"	center 170 [third control device] may be, for example, located within the same physical location as the cells. For extended coverage around the world, however, a plurality of control centers linked to each other may be employed."); 16:58-60 ("wherein said control center is located in a different physical location than said plurality of kitchen base stations.).
[1.8] "wherein the third signal is transmitted from the third control device to the second control device, and further wherein the third signal is automatically received by the second control device."	*See, e.g.*, Ex. 1008 at Figs. 1 and 6; 7:54-59 ("Also, kitchen base stations 150 each includes a microprocessor 167 that controls the activities of the base station and communication among the appliances and the kitchen base stations. Decisions are made by the microprocessor in accordance with the data received from the control center 170"). 5:36-38 ("Communication is provided between kitchen base stations 150 (B1-B6) and a control center 170 through communications links 175 of a data network 180."); 5:60-67 ("Each kitchen base station 150 (B1-B6) may interrogate a corresponding controller 140 or controller 140 may request to transmit diagnostic information relating to the operating conditions of kitchen appliances (A1-A11), which diagnostic information may be immediately communicated to control center 170.")

[1.0-1.1] "A control apparatus comprising: a first control device . . ."

The claim is drafted with several alternative limitations and therefore only requires a first control device that either generates or transmits a first signal, for example to activate/de-activate a premises equipment or appliance. Koether describes a Smart Commercial Kitchen which accomplishes active control of kitchen appliances by a microprocessor based controller that regulates functions of the

appliance such as temperature and power. Ex. 1008, 4:25-27 and 37-59. Specifically, Koether describes the controller as regulating the percentage of time that power is applied to the heating element in accordance with cooking parameters selected by the user. *Id.* at 4:52-54. Koether explains that through this controller the heating element may be fully turned on (activated), or operated in an off/on (deactivation/activation) manner similar to that of a thermostat. *Id.* at 4:55-58 The controller is part of the kitchen appliance located at a physical kitchen premises. *Id.* at 4:25-27. The microprocessor includes "built-in intelligence sensing and diagnostic equipment, which coupled through an interface board, detect and identify various types of failures." *Id.* at 4:60-63.

[1.2] "wherein the first control device is located at the premises"

The controller is part of the kitchen appliance located at a physical kitchen premises. *Id.* at 4:25-27. Koether describes that each kitchen appliance is provided with a microprocessor based controller 140 and that restaurants, bakeries, or hotels can have anywhere from one to forty kitchen appliances including, for example, various types of ovens, fryers, rotisseries, refrigerators and HVAC systems. *Id.* at 4:30-35.

[1.3] "wherein the first control device is responsive to a second signal . . . generated by and transmitted from a second control device"

The Smart Commercial Kitchen of Koether is described as having appliances 110 (first control device) that receives burst modulated signals from kitchen base stations 150. *Id.* at 7:30-31. The message burst includes control and supervisory information. *Id.* at 7:12-15. Kitchen base stations 150 are described as including a microprocessor 167 that controls the activities of the base station and communication among the appliances and the kitchen base stations. *Id.* at 7:54-57. Koether describes that "[d]ecisions are made by the microprocessor (of the kitchen base stations) in accordance with data received from the control center 170." *Id.* at 7:57-59. A person of ordinary skill in the art would understand that control functions of the Smart Commercial Kitchen described in Koether, such as activation/de-activation of appliances are decisions that are made by the kitchen base stations as informed by the control center and transmitted to the appliances for action. Ex. 1002, ¶ 33. Therefore, the kitchen base station contains the second control device that transmits the second signal to the first control device, which responds by executing the control function, as described in claim 1.

[1.4] "wherein the second control device is located at a location which is remote from the premises"

This limitation requires that the second control device be remote from the premises, which is where the premises appliance is located. Ex. 1002, ¶ 34. Koether describes kitchen base stations -- the claimed second control device -- covering an

entire cellular cell of kitchen appliances. Ex. 1008, Fig. 1; 5:3-8; 5:20-25. Koether explains Fig. 1 as "an arbitrary geographic area may be divided into a plurality of radio coverage cells 105 (C_1-C_6). It should be clearly understood that these cells may be located within the same or different buildings." *Id.* at 4:15-19. Koether also claims that "each of said base stations is associated with a radio coverage area or cell, such that restaurant appliances located within the same cell communicate with the same base station." *Id.* at 15:20-23. A person of ordinary skill in the art would understand that Koether describes a Smart Commercial Kitchen with cells that are geographically distributed over a wide area, including multiple buildings containing kitchen appliances which communicate through a single base station. Ex. 1002, ¶ 34.

Furthermore, by describing a kitchen base station's use of a cellular radio, Koether describes having the kitchen base station being some distance from at least one appliance within its cell. *Id.* Given the geographical coverage expressly described in Koether, a person of ordinary skill in the art would have found it obvious for the kitchen appliance and the kitchen base station to be remote from one another while connected via cellular communication. *Id.* Koether also explains satellite communication as another option between the kitchen base station and kitchen appliances, further suggesting to the person of ordinary skill in the art prior to July 1996 that it would be obvious to place the base station and kitchen appliances in remote locations from one another. Ex. 1008 at 5:16-19. Ex. 1002, ¶ 34.

[1.5] "wherein the second signal is transmitted from the second control device…and further wherein the second signal is automatically received by the first control device"

Koether is clear that "[m]ost of the functions are ***automatically*** controlled by the control center, but may also be performed manually by a control center operator." Ex. 1008, 5:67-6:9 (emphasis added). Koether explains that each appliance receives burst modulated signals (second signal) from kitchen base stations 150 through an antenna 550 connected to a receiver 555. *Id.* at 7:30-32. Each burst contains, among other things, "control or supervisory information and the data to be transmitted." *Id.* at 7:13-15. Koether explains that the equipment used by appliance to effect cellular communications is also used by the base stations and that the base station is connected to the control center through a high speed communication link. *Id.* at 7:45-54. Koether further explains the details of the RF transmission of the second signal sent from the base station to the appliance through cellular radio transmission techniques which is described as occurring without any human intervention. *Id.* at 7:30-42.

[1.6] "the second control device is responsive to a third signal… at least one of generated by and transmitted from a third control device"

Koether explains that the base stations communicates with a control center. *Id.* at 5:36-38. The control center contains various control devices along with a database.

Id. at 6:34-40. Koether explains that the "control center may… control in real-time the normal operation for some or all of the kitchen appliances,… the control center may control when the kitchen or restaurant appliance are turned on and off. *Id.* at 3:5-15. Therefore, the control center serves as the claimed third control device. Koether also makes clear that the control center and base stations are in bi-direction communication with one another through a data network. *Id.* at 5:36-38; *see also* 2:9-13. Koether also explains that decisions are made by the microprocessor of the base station based on data received from the control center. *Id.* at 7:57-59. Figure 6 also depicts a flow diagram of the operations of the kitchen base station which shows that, upon receiving data from the control center, the kitchen base station transmits data to the appliance. *See* Fig. 6; *Id.* at 8:7-10; Ex. 1002, ¶ 33. Thus, Koether describes a Smart Commercial Kitchen in which the base station responds, by making decisions, to signals transmitted from the control center (third control device).

[1.7] "the third control device is located at a location that is remote from the premises and remote from the second control device"

The control center of Koether -- the claimed third control device -- is described as ***optionally*** located in the same physical location as the cells. Ex. 1008, 5:55-59. Koether makes clear, however, that for a broader geographic coverage these control centers would need to be dispersed. *Id.* Koether also claims that the "control center is located in a different physical location than said plurality of kitchen base

stations." *Id.* at 16:58-60. Koether explains that "[t]hose skilled in the art will readily note that the network system of the present invention allows the control center to monitor kitchen appliances located over wide geographical areas..." *Id.* at 8:57-60. The control center is also described as being capable of dispatching a service vehicle and repair person to the site of a kitchen appliance needing service. *Id.* at 9:3-6; 9:61-64. Thus, the control center is clearly described as being remote from both the base station and the kitchen appliances.

[1.8] "the third signal is transmitted from the third control device to the second control device, and… is automatically received…"

The Smart Commercial Kitchen in Koether is describes as most of the functions being automatically controlled by the control center. *Id.* at 2:31-32. The communication from the control center to the base station, the third signal, occurs through a data network. *Id.* at 5:36-38. In Koether, the signal communicated from the control center -- the claimed third control device -- to the base station -- the claimed second control device -- was described as being over an integrated data network such as ISDN (Ex. 1008, 5:37-45) or using divided packets such as TDMA digital communications (*id.* at 6:67-7:1). There is no description of any human intervention to assist the base station in receiving the command signal from the control center. By disclosing these types of data networks and communications protocols, specifically ISDN, a person of ordinary skill in the art prior to July 1996

would have understood that the third signal is automatically received by the base station. Ex. 1002, ¶¶ 36-37.

Claim Language	Koether (Ex. 1008)
[8.0] "The apparatus of claim 1, wherein the first signal is transmitted from the first control device to the at least one of premises system, a premises device, a premises equipment, a premises equipment system, and a premises appliance, via a wireless device."	*See* Discussion of [1.0-1.8]. *Supra.* *See, e.g.*, Ex. 1008 Fig. 1 and Fig. 2; 4:25-26 ("Each kitchen appliance 110 (A_1-A_{11}) is preferably provided with a RF transmitter 120, RF receiver 130 and microprocessor based controller 140, as illustrated in Fig. 2.").

[8.0] "the first signal is transmitted from the first control device to the at least one of… premises appliance via a wireless device"

Koether expressly describes the kitchen appliance -- the claimed first control device -- communicating through a wireless device such as an RF transmitter. *Supra.* Koether even describes a wire data link as an alternative to wireless. Ex. 1008 at 4:28-29. The kitchen appliance controller is described as regulating the heating element of an appliance, including on/off functionality. *Id.* at 4:52-59. Moreover, one of skill in the art would have understood from Koether's discussion of prior art controllers and the advantageous and pervasive use of cellular links in its system that connection of the microprocessor controller and the appliance could be wireless. Ex 1002, ¶ 38.

Claim Language	Koether (Ex. 1008)
[12.0] "The apparatus of claim 1, wherein the at least one of a premises system, a premises	*See* Discussion of [1.0-1.8]. *Supra.* *See, e.g.*, Ex. 1008; 4:60-63 (Kitchen appliance "controllers may include built-in intelligent

device, a premises equipment, a premises equipment system, and a premises appliance, is a monitoring device for at least one of reading and monitoring at least one of a home fuel supply, a commercial premises fuel supply, a water supply, an electrical generator or alternator operation, a water usage, a heat usage, an air conditioning usage, an electricity usage, a gas usage, an oil usage, a fuel usage, at least one of a telephone usage and charges, an appliance usage, a commercial premises equipment usage, a commercial premises appliance usage, a home control system, and a commercial office or a commercial premises control system, wherein the apparatus provides information regarding at least one of data and information at least one of recorded by and read by the monitoring device."	sensing and diagnostic equipment, which coupled through an interface board, detect and identify various types of failures."); 8:57—61 ("Those skilled in the art will readily note that the network system of the present invention allows the control center to monitor kitchen appliances located over wide geographical areas for early warning of failure or degradation in performance.").; 9:7-43 ("It is contemplated that the control center responds to diagnostics information transmitted periodically by the appliance. At block 730, such diagnostic information is stored in database 190. Thus diagnostic information may include, but is not limited to the information indicated below:… Statistical Cooking Data Hours of Operation Deviations from Operating Temperature Deviations from Normal Operating Temperature Gradients").

[12.0] "the apparatus of claim 1, wherein at least one of… a premises appliance is a monitoring device for at least one of reading and monitoring at least one of a… appliance usage, a commercial premises equipment usage … wherein the apparatus provides information regarding at least one of data and information at least one of recorded and read by the monitoring device"

This claim is also drafted in the alternative and as such requires, as one alternative, that the premises appliance is a monitoring device for monitoring

appliance usage and providing information that is read by the monitoring device. Koether teaches that the kitchen appliances include controllers that "may include built-in intelligent sensing and diagnostic equipment, which coupled through an interface board, detect and identify various types of failures." Ex. 1008 at 4:60-67. Therefore the kitchen appliances are monitoring devices as they include sensing and diagnostic equipment. Koether further teaches that the numerous data transmitted from the kitchen appliance to the control center includes statistical cooking data for the appliance, such as hours of operation. (*See* listing of information, *id.* at 9:7-43.). Thus, the tracked appliance usage, in the form of hours of operation, is recorded and transmitted from the appliance to the control center. Ex. 1002, ¶ 39.

Koether also teaches that the kitchen appliances can monitor power usage. Koether explains "[t]hose skilled in the art will readily understand that during normal operation, the controller of each kitchen appliance regulates the percentage of time power is applied to the heating means in accordance with the stored cooking profiles of the food products." Ex. 1008 at 11:62-66.

To the extent monitoring of appliance usage or electricity usage by the kitchen appliances is argued to not be explicitly disclosed by Koether, given the functionality of the kitchen appliance controllers described in Koether and the stated premise of providing real-time computer aided diagnostics, maintenance records and energy management, it would have been obvious prior to July 1996 to a person of

ordinary skill in the art to monitor electricity usage, appliance usage, and water and fuel usage among other parameters in the Smart Commercial Kitchen described. Ex. 1002, ¶ 39.

Claim Language	Koether
[15.0]: "The apparatus of claim 1, further comprising: a monitoring device for detecting an occurrence warranting providing notice to at least one of an owner, a user, and an authorized operator, "	*See* Discussion of [1.0-1.8]. *Supra.* *See,* [12.0]. *Supra* regarding monitoring device for detecting an occurrence warranting notice. *See, e.g.*, Ex. 1008 at 4:60-64 (Kitchen appliance "controllers may include built-in intelligent sensing and diagnostic equipment, which coupled through an interface board, detect and identify various types of failures. Such failures include faulty heaters, sensors, , fans, and the like.").; 8:57-67 ("If the degradation, however, is gross, the control center [communication device] may communicate and display on the console of the kitchen appliance a message warning that the kitchen appliance is unacceptable for cooking purposes.");
[15.1]: "and further wherein the apparatus provides information regarding the occurrence in at least one of a telephone call, a voice message, a pager message, an electronic mail message, and a fax transmission."	9:60-67 ("a repair person may be dispatched to the site of the kitchen appliance requiring service or maintenance. This dispatch can be effected through radio communication (e.g. mobile kitchen station 200) or through the use of ordinary telephone to the appropriate service center nearest to the location of the kitchen appliance").

[15.0] "a monitoring device for detecting an occurrence warranting providing notice to at least one of…a user, and an authorized operator"

Koether teaches that the kitchen appliance include controllers that "may include built-in intelligent sensing and diagnostic equipment, which coupled through an interface board, detect and identify various types of failures." Ex. 1008 at 4:60-67. Therefore the kitchen appliances are monitoring devices as they include sensing and diagnostic equipment, and equipment failure is one occurrence that would warrant providing notice. Koether teaches that if the degradation of the appliance is severe, a message may be displayed on the console of the appliance indicating that it is unsuitable for use. *Id.* at 8:57-67. Thus, the kitchen appliance controller – monitoring device—can detect a failure and provide notice to a user or authorized operator of the appliance by displaying a warning message. Ex. 1002, ¶ 40.

[15.1] "and further wherein the apparatus provides information regarding the occurrence in at least one of a telephone call, a voice message, ..."

The claim language is again expressed in the alternative and only requires that the information of the occurrence be provided in only one of several methods including a telephone call and a voice message. However, the claim language does not specify to whom the message is provided, and the plain language of the claim requires only that the information be provided through one of the methods set forth. Ex. 1002, ¶ 41. Koether teaches that the control center may dispatch a repair person if a repair message is received from the kitchen appliance. Ex. 1008 at 8:52-56. Koether describes that the dispatch can occur "through an ordinary telephone to the

appropriate service center nearest to the location of the kitchen appliance." *Id.* at 9:64-67. Thus, Koether clearly teaches a Smart Commercial Kitchen which includes a monitoring device – kitchen controller -- that detects failures of kitchen appliances and provides notice to users on the appliance console, and further provides such information via a telephone call to service center.

To the extent, it is argued that the claim language of claim 15 requires providing information of the occurrence to one of an owner, a user or authorized operator, although not explicitly required by the claim, the service center repair person would fall under the plain meaning of "authorized operator," as such repair personnel are given access to the appliance for purposes of ensuring proper functioning. Furthermore, Koether teaches in the case of gross degradation, in addition to dispatching the service vehicle, "the control center may communicate and display on the console of the kitchen appliance a message warning that the kitchen appliance is unacceptable for cooking purposes." *Id.* at 8:61-64. As Koether already describes placing a telephone call to the service center, it would have been obvious prior to July 1996 to a person of ordinary skill in the art to also include, in the Smart Commercial Kitchen system, a telephone call or voice message to the owner, users, or other authorized operators, such as a restaurant manager, that a particular appliance in the kitchen is unacceptable for operation and a repair person has been dispatched. A person of ordinary skill in the art would have recognized that this information would

be important to the restaurant personnel so that they could plan for operation without the effected equipment and know that efforts to repair the malfunction are under way. Ex. 1002, ¶ 41.

Claim Language	Koether (Ex. 1008)
[17.0] "The apparatus of claim 1, wherein the first control device generates at least one of a confirmation signal and a notification signal for providing information regarding that at least one of a control, a monitoring, a securing, a disabling, and a re-enabling, function has been carried out and is successful or unsuccessful."	*See* Discussion of [1.0-1.8]. *Supra.* *See, e.g.*, Ex. 1008, 13:2-12 ("Inasmuch as controller 140 and thus control center know whether the appliance is in an idle or cook mode, the appliance can judiciously be turned off without affecting the operation of the appliance. Alternatively, base station 105 may place the appropriate kitchen appliance in the power cycle "off" state and inform control center 170 of its actions. Additionally, other kitchen appliances, which may not be currently operating, may have their "off" time extended by control center 170, which is effected through communication to and from the corresponding microprocessor controller 140.").

[17.0] "the first control device generates at least one of a confirmation signal and a notification signal for providing information regarding that at least one of a control . . . function has been carried out and is successful or unsuccessful."

This claim again is written in the alternative so that it requires only one of a "confirmation signal" or "notification signal" regarding a control function being carried out and whether successful or unsuccessful. Ex. 1002, ¶ 42. Koether teaches that the controller 140 – first control device – knows whether the appliance is in an

idle or a cook mode. Ex. 1008 at 13:2-4. Koether further teaches the base station, which is in bi-directional communication with the controller 140, "may place the appropriate kitchen appliance in the power cycle "off" state and *inform control center 170 of its actions*." *Id.* at 13:6-8 (emphasis added). Therefore, Koether teaches that the kitchen appliance controller 140 will know when a control function places it in a power state "off" condition upon receiving a command from the base station, and confirm that it has been shut off such that the base station can inform the control center. To the extent that Koether does not explicitly teach a confirmation signal generated by the first control device, it would have been obvious to a person of ordinary skill in the art prior to July 1996 to modify the teaching of Koether to generate and provide a confirmation signal of a power off and other control functions from the kitchen appliance controller to the base station and the control center. Ex. 1002, ¶ 42-43. For example, Koether clearly teaches the recognition by the kitchen appliance controller 140 of the change of state to the off state and the transmission of information of such change command from the base station to the control center. A person of ordinary skill in the art would know to implement a simple confirmation signal from the controller of the kitchen appliance 140 upon recognition that the appliance has been changed to the off state to accomplish the described control functions of the Smart Commercial Kitchen, including controlling, in real-time, peak power demand of the kitchen appliances. Ex. 1008 at 12:5-8. Ex. 1002, ¶ 42-43.

Claim Language	Koether
[98.0]: "A control apparatus, comprising;"	*See, supra* [1.0].
[98.1]: "a first control device, wherein the first control device is capable of at least one of activating, deactivating, disabling, and re-enabling, one or more of a plurality of at least one of a premises system, a premises device, a premises equipment, a premises equipment system, and a premises appliance, of a premises,"	*See, supra* [1.1].
[98.2]: "wherein the first control device at least one of generates and transmits a first signal for at least one of activating, de-activating, disabling, and re-enabling, the at least one of a premises system, a premises device, a premises equipment, a premises equipment system, and a premises appliance,"	*See, supra* [1.1].
[98.3]: "wherein the first control device is located at the premises,"	*See, supra* [1.2].
[98.4]: "wherein the first control device is responsive to a second signal, wherein the second signal is at least one of generated by and transmitted from a second control device,"	*See, supra* [1.3].
[98.5]: "wherein the second control device is located at a location which is remote from the premises,"	*See, supra* [1.4].
[98.6]: "wherein the second signal is transmitted from the second control device to the first control device, and further	*See, supra* [1.5].

wherein the second signal is automatically received by the first control device,"	
[98.7]: "wherein the second control device is responsive to a third signal, wherein the third signal is at least one of generated by and transmitted from a third control device,"	*See, supra* [1.6].
[98.8]: "wherein the third control device is located at a location which is remote from the premises and remote from the second control device,"	*See, supra* [1.7].
[98.9]: "wherein the third signal is transmitted from the third control device to the second control device, and further wherein the third signal is automatically received by the second control device."	*See, supra* [1.8].

[98.0-98.9] "A control apparatus, comprising …"

Claim 98 contains nearly identical language to claim 1 with only slight variances with respect to the terminology used to describe the functionality of the first control device. The citations and arguments addressing claim 1 of the '130 patent are thus incorporated herein in their entirety and are not repeated to avoid redundancy. *See* IX.A. *supra*.

Claim Language	Koether
[145.0]: "A method for providing control, comprising:"	*See, supra* [1.0].
[145.1]: "transmitting a first signal from a first control device to a	*See, supra* [1.6].

second control device,"	
[145.2]: "wherein the first control device is located at a location remote from a premises and remote from the second control device,"	*See, supra* [1.7].
[145.3]: "and further wherein the first signal is automatically received by the second control device;"	*See, supra* [1.8].
[145.4]: "transmitting a second signal from the second control device to a third control device,"	*See, supra* [1.5].
[145.5]: "wherein the third control device is located at the premises,"	*See, supra* [1.2].
[145.6]: "and further wherein the second control device is located at a location remote from the premises,"	*See, supra* [1.4].
[145.7]: "wherein the second signal is automatically received by the third control device,"	*See, supra* [1.5].
[145.8]: "and further wherein the third control device is capable of at least one of activating, de-activating, disabling, and re-enabling, one or more of a plurality of at least one of a premises system, a premises device, a premises equipment, a premises equipment system, and a premises appliance;"	*See, supra* [1.1].
[145.9]: "generating a third signal with the third control device in response to the second signal;"	*See, supra* [1.1], [1.3].
[145.10]: "and at least one of activating, de-activating, disabling, and re-enabling, the at least one of a premises system, a premises device, a premises equipment, a	*See supra* [1.1].

premises equipment system, and a premises appliance, in response to the third signal.	

[145.0-145.10] "A method for providing control, comprising …"

Claim 145 claims a method for providing control incorporating various components including first, second, and third control devices. The structural components described in claim 145 are almost identical to those described in claims 1 and 98 with one notable exception: claims 1 and 98 recite that the first control device is located at the premises; claim 145 recites that the third control device is located at the premises. The following tables have been provided to show this discrepancy:

Claims 1 and 98	**Location**
"first control device"	"at the premises"
"second control device"	"remote from the premises"
"third control device"	"remote from the premises and remote from the second control device"
Claim 145	**Location**
"first control device"	"remote from the premises and remote from the second control device"
"second control device"	"remote from the premises"

"third control device"	"at the premises"

The method steps described in claim 145 are nearly identical to the functional limitation recited in claims 1 and 98 and therefore citations and arguments addressing claim 1 of the '130 patent are incorporated herein in their entirety and are not repeated to avoid redundancy. *See* IX.A. *supra*.

Claim Language	Koether (Ex. 1008)
[149.0]: "The method of claim 145, further comprising: at least one of reading and monitoring at least one of a home fuel supply, a commercial premises fuel supply, a water supply, an electrical generator or alternator operation, a water usage, a heat usage, an air conditioning usage, an electricity usage, a gas usage, an oil usage, a fuel usage, at least one of a telephone usage and charges, an appliance usage, a commercial premises equipment usage, a commercial premises appliance usage, a home control system, and a commercial office or commercial premises control system, with a monitoring device, and providing information regarding at least one of data and information at least one of recorded by and read by the monitoring device."	*See* Discussion of [145.0-145.10]. *Supra.* *See, e.g.*, Ex. 1008; 4:60-63 (Kitchen appliance "controllers may include built-in intelligent sensing and diagnostic equipment, which coupled through an interface board, detect and identify various types of failures."); 8:57—61 (Those skilled in the art will readily note that the network system of the present invention allows the control center to monitor kitchen appliances located over wide geographical areas for early warning of failure or degradation in performance.).; 9:7-43 ("It is contemplated that the control center responds to diagnostics information transmitted periodically by the appliance. At block 730, such diagnostic information is stored in database 190. Thus diagnostic information may include, but is not limited to the information indicated below:… Statistical Cooking Data Hours of Operation Deviations from Operating Temperature Deviations from Normal Operating Temperature Gradients").

[149.0] "the method of claim 145, further comprising: at least one of reading and monitoring at least one of a… appliance usage, a commercial premises equipment usage … and providing information regarding at least one of data and information at least one of recorded by and read by the monitoring device"

The method steps described in claim 149 are nearly identical to the functional limitation recited in claim 12 and therefore citations and arguments addressing claim 12 of the '130 patent are incorporated herein in their entirety and are not repeated to avoid redundancy. *See* IX.A. *supra*.

B. Ground 2 – Claims 10, 15, 119 and 124 Are Obvious over Koether in Light of Crater and/or the Knowledge of the Ordinary Skilled Artisan.

Koether (Ex. 1008) is explained in detail above. Crater (Ex. 1009) was filed on May 30, 1996 and issued on September 8, 1998. Because of its filing date, Crater is prior art to the Challenged Claims under 35 U.S.C. § 102(e). Crater was not disclosed or considered during the prosecution of the '130 patent. The following provides disclosure from Koether and Crater as well as an explanation of how the references apply to each limitation of the claim. Petitioner does not assert the preambles of the Challenged Claims are limiting or non-limiting. Regardless, Koether and Crater discloses the features recited in each preamble.

A person of ordinary skill in the art at the proper priority date for the Challenged Claims would have been motivated to combine Koether with Crater because of the overlapping subject matter and problems addressed by both prior art references. Ex. 1002, ¶¶ 50-51. Specifically, Crater describes the need for monitoring, management, and control of equipment "to organize and distribute operations and detect malfunction." Ex. 1009 at 1:12-32. Crater added to the art a solution that "[w]hen executed, the program causes the controller to examine the state of the controlled machinery by evaluating signals from one or more sensing devices (e.g., temperature or pressure sensors), and to operate the machinery (e.g., by energizing or deenergizing operative components) based on procedural framework, the sensor signals and, if necessary, more complex processing." *Id.* As described above, Koether was also aimed at "monitoring and controlling the activities of commercial kitchen or restaurant appliances." Ex. 1008 at 1: 13-18. Koether also directly addressed the importance of using the control system for diagnosing malfunctions and energy management of various appliances including kitchen appliances, cooling systems, and HVAC systems. *Id.* at 1:19-23; 1:26-29; 1:58-61. Koether describes a Smart Commercial Kitchen network capable of "in real-time to monitor and control the maintenance, repair and energy management of kitchen or restaurant appliances located over a wide geographical area." *Id.* at 3:50-54.

Crater sought to take advantage of the rapidly expanding World Wide Web as a cost-savings mechanism to avoid having to reproduce resources in the described system. Ex. 1009 at 2:40-55. Further taking advantage of the multi-media capabilities of the World Wide Web allowed Carter to add to his remote monitoring and control system audio and video monitoring capabilities to further benefit users from remote geographies. *Id.* at 4:58-5:12. Accordingly, a person of ordinary skill in the art would have recognized from Carter's express teachings, and motivation for such disclosure, the benefits of adding certain features from Carter to Koether and having those systems function exactly as each describe. Ex. 10002 at ¶¶ 50-51.

The combination of Koether with Crater teaches, or at the very least makes obvious, the apparatus capable of remotely monitoring and controlling a kitchen appliance as claimed in claims 10, 15, 119, and 124.

Claim 10 and 119 - Koether Combined with Crater Discloses or Makes Obvious the Elements of Claim 10 and 119:

Claim Language	Koether (Ex. 1008) and Crater (Ex. 1009)
[10.0]: "The apparatus of claim 1, wherein the at least one of a premises system, a premises device, a premises equipment, a premises equipment system, and a premises appliance, is at least one of a video recording device and a camera for obtaining video information at the premises." [119.0]: "The apparatus of claim 98,	*See supra* IX.A (concerning claim 1), discussed above. *See supra* IX.A(concerning claim 98) *See also*, Ex. 1009 at 4:58-4:67 ("'Display' in this sense can range from simply pictorial and textual rendering to real-time playing of audio and/or video segments or alarms,. mechanical indications, printing, or storage of data for subsequent display."); 3:19-26 ("The remote

Claim Language	Koether (Ex. 1008) and Crater (Ex. 1009)
wherein the at least one of a premises system, a premises device, a premises equipment, a premises equipment system, and a premises appliance, is at least one of a video recording device and a camera for obtaining video information at the premises."	computer also includes a facility for processing the instructions to create a user interface – that is, a visual display or other presentation having a predetermined format – encoded by the instructions, and which incorporates the data.")

[10.0 and 119.0] "the at least one of a . . . premises appliance, is . . . a video recording device . . . for obtaining video information of the premises"

This claim element ads that the premises equipment includes a camera or recording device for obtaining video information at the premises. Ex. 1002, ¶ 52. Crater teaches the transmission of real-time video to the monitoring station. Ex. 1009, 4:58-5:12. In order to accomplish this, a person of ordinary skill in the art would understand, based on the disclosure of Crater, that a video camera or other video recording device is situated at the equipment site along with the controllers, or at a minimum it would have been obvious to a person of ordinary skill in the art prior to July 1996 to include such equipment to accomplish the video transmission described in Crater . Ex. 1002, ¶ 52. Crater describes that the monitoring station can be equipped with a display for viewing such data. Ex. 1009*,* 3:19-26. Crater also described use of the Internet and World Wide Web's multimedia data relay capabilities to facilitate transmission of data, which would include video information. *Id.* at 2:40-

55. Crater explains that data from the controllers can be stored in a web page, or document, that is accessible by the client via hyperlink from a different webpage. *Id.* at 7: 53-59; 8:4-36. The pictorial and video information described in Crater would be included in such data. Ex. 1002, ¶ 52. At the very least, a person of ordinary skill in the art prior to July 1996 would have found it obvious to combine the teachings of Crater and Koether to have a video camera at the kitchen appliance of Koether and relay video data to the control center. *Id.* This would facilitate the repair process described in Koether as the video information of an appliance malfunction would add additional detail to the numerous types of diagnostic information (*see* Ex. 1008, 9:7-43) that Koether already describes as being transmitted from the appliance to the control center. Ex. 1002, ¶ 52.

Claim 15 - Koether Combined with Crater Discloses or Makes Obvious the Elements of Claim 15:

Claim Language	Koether (Ex. 1008) and Crater (Ex. 1009)
[15.0]: "The apparatus of claim 1, further comprising: a monitoring device for detecting an occurrence warranting providing notice to at least one of an owner, a user, and an authorized operator, "	*See* Discussion of [1.0-1.8]. *Supra.* *See, supra* IX.A regarding monitoring device of Koether for detecting an occurrence warranting notice. *See, e.g.*, Ex. 1009 at 2:56-65 ("an integrated control system comprises one or more controllers each equipped to perform a control function and to gather data (ordinarily from sensors) relevant to the control function. 'Relevant' data includes, at a minimum, any information upon which control decisions are made or states shifted,

	but can also include information obtained from sensors not directly connected to the controller (e.g. involving other controlled machines) but which is nonetheless meaningful to supervisory personnel."); *Id.* at 9:3-7 (it may prove desirable, therefore, to allow an appropriately authorized client to directly modify control parameters (which, may for example, be stored on a restricted-access web pate) that determine the operation of the controller and, hence, the controlled machine or process.")
[15.1]: "and further wherein the apparatus provides information regarding the occurrence in at least one of a telephone call, a voice message, a pager message, an electronic mail message, and a fax transmission."	Ex. 1009 at 4:58-67 ("'Display' in this sense can range from simply pictorial and textual rendering to real-time playing of audio and/or video segments or alarms, mechanical indications, printing, or storage of data for subsequent display.")

[15.0] "a monitoring device for detecting an occurrence warranting providing notice to at least one of…a user, and an authorized operator"

Koether teaches that the kitchen appliance include controllers that "may include built-in intelligent sensing and diagnostic equipment, which coupled through an interface board, detect and identify various types of failures." Ex. 1008. at 4:60-67. *See also* supra IX.A. Crater also describes local controllers for operating and monitoring industrial equipment. Ex. 1009 at 1:6-10. The controllers described in Crater include sensors for gathering information relevant to the control function.: *Id.* at 2:56-59. Crater states that the information gathered by the controller includes information that is "meaningful to supervisory personnel." *Id.* at 2:59-65. Therefore

both Koether and Crater describe monitoring devices that would detect occurrences warranting notice to an authorized user. Ex. 1002, ¶¶ 40, 53.

[15.1] "and further wherein the apparatus provides information regarding the occurrence in at least one of a telephone call, a voice message, ..."

The claim language is again expressed in the alternative and only requires that the information of the occurrence be provided in only one of several methods, for example a voice message. Crater describes a remote monitoring computer that is in communication with the controllers. Ex. 1009 at 3:5-26. In addition to supervisory personnel, Crater describes that the remote monitoring computer can be operated by an "authorized client to directly modify control parameters (which may for example, be stored on a restricted-access web page) that determine the operation of the controller and, hence, the controlled machine or process." *Id.* at 9:3-7. Crater also describes the use of internet connectivity to provide "real-time playing of audio and/or video segments or alarms…" *Id.* at 4:63-67. Thus, Crater teaches providing audio segments to authorized operators, one example of which a person of ordinary skill in the art reviewing the teachings of Crater would understand to be a voice message. Ex. 1002, ¶ 53. Furthermore, a person of ordinary skill in the art prior to July 1996 would have found it obvious to incorporate the audio segment/alarm capability into the Smart Commercial Kitchen of Koether. *Id.* at ¶ 54. Koether describes a long list of diagnostic information (*see* Ex. 1008, 9:10-43) as being

transmitted from the appliance to the control center in cases of equipment failure and a person of ordinary skill in the art would have found it obvious to include in such transmission the audio segment/alarm feature of Crater to provide additional notification and information about the failure to the control center operator through a voice message. *Id.* at ¶¶ 53-54.

Claim 124 - Koether Combined with Crater Discloses or Makes Obvious the Elements of Claim 124:

Claim Language	Koether (Ex. 1008) and Crater (Ex. 1009)
[124.0]: "The apparatus of claim 119, wherein the at least one of a video recording device and a camera further comprises: a storage medium for storing at least one of recorded video and a picture."	*See* Discussion of [98.0-98.9 and 119.0]. *Supra.* Ex. 1009 at 3:5-15 ("Each controller contains computer storage means, such as computer memory (volatile and/or non-volatile, such as random-access memory ("RAM"), programmable read-only memory ("ROM") or Flash ROM), or a mass storage device such as a hard disk or CD-ROM, for storing the relevant data and instructions, associated with the data, for causing a remote computer to present the data (e.g. by generating a visual display incorporating the data) in a predetermined format; and communication module for establishing contact and facilitating data interchange with the remote computer."). Ex. 1009 at Abstract. "Each controller contains computer storage means, such as computer memory, for storing the relevant data and instructions, associate with the data,

	for cause a remote computer to generate a visual display incorporating the data in a predetermined format; and a communication module for establishing contact and facilitating data interchange with the remote computer."

[124.0] "wherein the at least one of a video recording device and a camera further comprises: a storage medium for storing at least one of recorded video and a picture."

Crater describes a system in which each controller has one or more computer storage devices 14. Ex. 1009 at 6:25-29. The storage devices are described as including both volatile and non-volatile memory, as well as mass storage facilities such as hard disk and CD-ROM drives. *Id.* at 6:29-35. Even the Abstract of Crater acknowledges the existence of memory needs for video and communication relay between the monitoring station and the controller. *Id.* at Abstract. As described *supra*, Crater expressly teaches displaying to the client a range of data from "simple pictorial and textual rendering to real-time playing of audio and/or video segments or alarms, mechanical indications, printing, or *storage of data for subsequent display*." *Id.* at 4:63-67 (emphasis added). Crater therefore teaches the storing of both pictorial and video information through various computer storage devices. Ex. 1002,. ¶ 55.

X. CONCLUSION

For the foregoing reasons, there is a reasonable likelihood that claims 1, 8, 10, 12, 15, 17, 98, 119, 124, 145 and 149 will be held unpatentable. Therefore, Petitioners respectfully request that the Patent Trial and Appeal Board grant this Petition for *inter partes* review of the '130 Patent.

Respectfully submitted,

Date: August 18, 2015

By: /s/Mitchell G. Stockwell
Registration No. 39,389
Lead Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of this Petition for *Inter Partes Review*, together with Exhibits 1001-1009, has been served via Express Mail on August 18, 2015, upon the following:

Raymond A. Joao, Esq.
122 Bellevue Place
Yonkers, New York 10803

Counsel of Record for U.S. Patent No. 7,397,363

Dated: August 18, 2015

By: /s/Mitchell G. Stockwell/
Registration No. 39,389
Counsel for Petitioner