UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HEALTH CARE LOGISTICS, INC.

Petitioner,

v.

KIT CHECK, INC.

Patent Owner

Case IPR. No. Unassigned

U.S. Patent No. 9,367,665

Title: MANAGEMENT OF PHARMACY KITS

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,367,665

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> Health Care Logistics, Inc. Exhibit 1003

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I, Behbood Ben Zoghi, declare as follows:

I. INTRODUCTION

- I have been retained by Petitioner, Health Care Logistics, Inc., relative to its Petitions for *inter partes* review of U.S. Patent No. 8,990,099 ("the '099 Patent"); U.S. Patent No. 9,058,412 ("the '412 Patent); U.S. Patent No. 9,058,413 ("the '413 Patent); U.S. Patent No. 9,367,665 ("the '665 Patent"); and U.S. Patent No. 9,805,169 ("the '169 Patent"). I am being compensated at an hourly rate of \$300/hour for time spent preparing this Declaration. My compensation is not contingent on the outcome of the matter for which this Declaration was prepared. I have no financial interest in this matter.
- In preparation for this Declaration, I have read and become familiar with the nature of the subject matter described and claimed in the '099, '412, '413, '665, and '169 Patents and of the other documents identified in this Declaration.
- 3. I have been informed that the earliest priority date of any of the '099, '412, '413, '665, and '169 Patents is August 2, 2011.
- 4. I have personal knowledge of the facts stated in this Declaration, and unless stated otherwise herein, and I would testify truthfully to those facts if called as a witness.
- 5. Due to my education and the extensive relevant experience as summarized in Section II below and further demonstrated in the attached curriculum vitae (HCL-1004), I have personal knowledge of what would have been obvious to a person of ordinary skill in the art in the August 2011 timeframe.

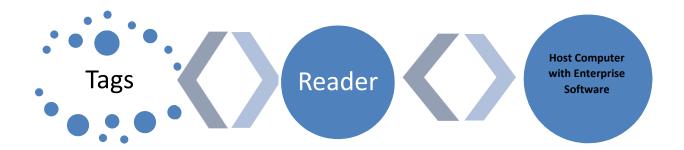
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II. BACKGROUND AND QUALIFICATIONS

- 6. I received a B.S. degree in Electrical Engineering from Seattle University in 1982 as well as a M.S. degree in Electrical Engineering from The Ohio State University in 1986 and a Ph.D. in Bioengineering/Electrical Engineering from Texas A&M University in 1993. Attached to this Expert Report, as HCL-1004, is a true and correct copy of my curriculum vitae.
- 7. From 1999 to the present I have been a tenured professor at Texas A&M, where I have taught various courses in Electronics Engineering Technology, among others. I am the Victor H. Thompson Professor of Electronic Systems, as well as Director of Master of Engineering Technical Management.
- 8. I have taught senior level students at Texas A&M about RFID systems.
- 9. I have also served as Director of the RFID Oil & Gas Solution group consortium, and currently serve as the Director of the Texas A&M RFID/Sensor Technology Lab.
- 10. I have led various research projects involving RFID technology, including, but not limited to, projects analyzing RFID solutions for various applications in the railroad, automotive traffic, oil & gas, library, cargo security, and inventory management industries. Many of these projects occurred prior to August 2011.
- 11. I am co-author on a book titled "RFID APPLICATIONS AND CASES" that was published in December 2010.
- 12. I have written numerous journal publications and white papers regarding various applications of RFID technology.
- I have presented at many conferences and seminars, including numerous presentations at RFID Journal conferences both nationally and internationally.

III. BASICS OF RFID TECHNOLOGY

- 14. Radio-frequency identification (RFID) technology is based generally on the use of electromagnetic fields to remotely read special (RFID) tags that can be attached to various items.
- 15. A basic RFID system consists of the following three components: (1) one or more RFID tags; (2) a reader; and (3) enterprise (e.g., "back end") software. Such a system is schematically illustrated below:



- 16. RFID systems like those described in ¶ 15 above were well known and widely used significantly prior to August 2, 2010. In fact, I am personally aware that such RFID systems were known and in use at least as early as 2001.
- 17. RFID tags generally consist of three basic components:
 - a. <u>Microchip</u>: stores data related to the object to which the tag is attached. Data may be programmed at the point of manufacture by the factory, or by the end user ("field programming").
 - b. <u>Receiver</u>: receives information/power from the reader (or "interrogator").
 - c. <u>Transmitter</u>: sends information back to the reader.
- 18. RFID tags are sometimes also referred to as "transponders."
- Information stored on an RFID tag can range from as little as an identification number, to kilo-bytes of data.

- 20. RFID tag data stored on the microchip usually contains unique identification information referred to as an "Electronic Product Code" (EPC) that allows RFID tags to be used to uniquely identify different items that to which they are attached.
- 21. The unique identification number may also be used to relate a particular item bearing a particular RFID tag with information stored in one or more databases.
- 22. An RFID tag may also contain additional information such as, but certainly not limited to, item history, manufacturer, age of equipment, expiration, etc.
- 23. RFID tags may be "passive," "active," or "semi-passive." Passive tags do not contain an onboard power source. In order to operate they harness the energy received from the reader (or "interrogator"). They only transmit information when the RF energy received from the reader activates their internal circuitry.
- 24. In a passive system, an RFID tag is typically activated or interrogated by a reader using an antenna, which may be a separate component or may be integrated into the reader.
- 25. Active RFID tags, on the other hand, have onboard power and transmit information as long as their power source allows.
- 26. Semi-passive tags have an onboard power supply, but communicate using backscatter.
- 27. The information on an RFID tag can be transferred to a reader wirelessly from a distance. Thus, a transfer of data from an RFID tag does not require the reader to be present in the line of sight of the tag.
- 28. It was understood in the art well before August 2, 2010, that another advantage of RFID technology over other known technology, such bar code systems, is that RFID technology allows a single reader to read multiple RFID tags at the same time, thereby significantly hastening the scanning process and the subsequent processing of the RFID tag data.

- 29. A reader of an RFID system can either filter all of the data received from one or more RFID tags or directly transfer all of said data to a host system, which runs an enterprise software application.
- 30. Enterprise software may place a diverse role in an RFID system, from filtering the percolated tag data further, to making rule-based decisions, generating notifications, maintaining a comprehensive database for each asset, passing on tag information to other business applications, etc. In short, enterprise applications can be configured to process RFID tag data in many different ways, depending on the application, in order to produce meaningful decision-making outputs.
- 31. Depending on the industry, enterprise software may be "Warehouse Management Software" ("WMS") that is used by companies to manage and track inventory.
- 32. Depending on the industry, enterprise software may have kitting functionality that is usable to manage/inventory/verify kits of items, such as but not limited to, verifying whether or not all of some expected number and/or type of items are present in a given kit.
- 33. I am personally aware that well before August 2, 2010, at least Globeranger Corporation and Shipcom Wireless (both based in Texas) produced enterprise software that had the ability to process passive RFID tag data for use in a warehousing or kitting environment.
- 34. I am personally familiar with the capabilities of the enterprise software applications referenced in ¶ 33 as they existed at a time before August 2, 2010.
- 35. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of tracking the number of items in a given inventory.

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- 36. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of identifying when an amount of items in inventory meet a preset threshold amount.
- 37. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of tracking item expiration information (e.g., expiration dates).
- 38. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of identifying classes and/or categories of items.
- 39. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of identifying relationships between items in inventory such that one item could be identified by the software as an alternate/equivalent/substitute for another item.
- 40. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of determining whether a particular item is present or missing from a given inventory.
- 41. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of querying information pertaining to one or more items, which may include querying a database containing information about the one or more items.
- 42. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of working with a template/list/bill of materials to establish predetermined requirements for a given inventory, and comparing an actual inventory as

determined from RFID tag data to the template/list/bill of materials to determine if the actual inventory deviates from the predetermined requirements.

- 43. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of evaluating an inventory relative to item kind/type/class, and item recall status.
- 44. I am personally aware that, prior to August 2, 2010, the enterprise software applications referenced in ¶ 33 were capable of performing the functions recited in ¶¶ 35-43 with respect to a kit or collection of items (sometimes referred to as "kitting" operation).
- 45. I have attached a few examples of software guides and manuals to help demonstrate how the above functions (and many others) were commonplace in enterprise software prior to August 2, 2010. These references are:

Exhibit 1: Best Software, A Software Buyer's Guide, "Kitting and Assembly", March 2003.

Exhibit 2: Sage Accpac ERP, "Serialized Inventory 5.5A", 2008.

I have assumed that the publication date information provided on these references is in fact correct, but I have no personal knowledge of that fact.

I declare under penalty of perjury that the foregoing is true and accurate.

Dr. Behbood Ben Zoghi

Date: Nov 30, 2018

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R §§ 42.6(e) and 42.105, I certify that on this 30th day

of November, 2018, I caused to have served a copy of this POWER OF

ATTORNEY by Federal Express Next Business Day Delivery on the following

addresses for patent owner(s) and their representatives that are listed in the

United States Patent and Trademark Office's public records:

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