504275568 03/16/2017

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4322250

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

### **CONVEYING PARTY DATA**

Name	Execution Date
CHS/COMMUNITY HEALTH SYSTEMS, INC.	03/16/2017
HEALTH MANAGEMENT ASSOCIATES, LLC	03/16/2017

### **RECEIVING PARTY DATA**

Name:	CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS COLLATERAL AGENT
Street Address:	11 MADISON AVENUE
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10010

### **PROPERTY NUMBERS Total: 30**

Property Type	Number
Patent Number:	8612261
Application Number:	13594724
Application Number:	61737630
Application Number:	14107213
Application Number:	61737219
Application Number:	14107087
Application Number:	13689166
Application Number:	61737644
Application Number:	14107276
Application Number:	61764426
Application Number:	13715945
Application Number:	13767586
Application Number:	13715932
Application Number:	13713336
Application Number:	13759685
Application Number:	61819372
Application Number:	61736730
Application Number:	14106243
Application Number:	13673587

<u>PATENT</u>

504275568 REEL: 041598 FRAME: 0453

Property Type	Number
Application Number:	13673605
Application Number:	61766593
Application Number:	61733051
Application Number:	14097221
Application Number:	61737238
Application Number:	14108191
Application Number:	61737247
Application Number:	14108209
Application Number:	61819418
Application Number:	61821122
PCT Number:	US1340412

#### **CORRESPONDENCE DATA**

**Fax Number:** (800)494-7512

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 202-370-4750

Email: ipteam@nationalcorp.com
Correspondent Name: DARLENA BARI STARK

Address Line 1: 1025 VERMONT AVE NW, SUITE 1130
Address Line 2: NATIONAL CORPORATE RESEARCH, LTD.

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	F169038
NAME OF SUBMITTER:	RACHEL KLEIN
SIGNATURE:	/RACHEL KLEIN/
DATE SIGNED:	03/16/2017

#### **Total Attachments: 10**

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PATENT SECURITY AGREEMENT dated as of March 16, 2017 (this "Agreement"), among CHS/COMMUNITY HEALTH SYSTEMS, INC., a Delaware corporation, together with the other entities listed on the signature pages hereof (each a "Grantor", and collectively, the "Grantors") and CREDIT SUISSE AG, as Collateral Agent (the "Collateral Agent").

Reference is made to (a) the Amended and Restated Guarantee and Collateral Agreement dated as of July 25, 2007, as amended and restated as of November 5, 2010, and as further amended as of August 17, 2012 (as further amended, restated, supplemented or otherwise modified from time to time, the "Security Agreement"), among CHS/Community Health Systems, Inc., a Delaware corporation (the "Borrower"), Community Health Systems, Inc., a Delaware corporation (the "Parent"), the Subsidiaries from time to time party thereto and the Collateral Agent, (b) the Third Amended and Restated Credit Agreement, dated as of July 25, 2007, as amended and restated as of November 5, 2010, February 2, 2012 and January 27, 2014, and as further amended as of March 9, 2015, May 18, 2015 and December 5, 2016 (as further amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among the Borrower, the Parent, the lenders from time to time party thereto (the "Lenders") and Credit Suisse AG, as administrative agent and Collateral Agent and (c) the indenture dated as of March 16, 2017 (the "Base Indenture"), among the Company, the guarantors party thereto, the Collateral Agent and Regions Bank, as indenture trustee, as supplemented by the supplemental indenture dated March 16, 2017 (the "Supplemental" Indenture", and together with the Base Indenture, the "Indenture"), together with the global notes evidencing the securities issued thereunder on March 16, 2017 and the guarantees thereon. The Secured Parties have agreed to extend credit to the Borrower subject to the terms and conditions set forth in the Indenture. The obligations of the Secured Parties to extend such credit are conditioned upon, among other things, the execution and delivery of this Agreement. The Grantors are affiliates of the Borrower, will derive substantial benefits from the extension of credit to the Borrower pursuant to the Indenture and are willing to execute and deliver this Agreement in order to induce the Secured Parties to extend such credit. Accordingly, the parties hereto agree as follows:

SECTION 1. <u>Terms.</u> Capitalized terms used in this Agreement and not otherwise defined herein have the meanings specified in the Credit Agreement, Security Agreement or the Indenture, as applicable. The rules of construction specified in Section 1.01(b) of the Security Agreement also apply to this Agreement.

SECTION 2. Grant of Security Interest. As security for the payment or performance, as the case may be, in full of the Obligations, each Grantor, pursuant to the Security Agreement, did and hereby does grant to the Collateral Agent, its successors and assigns, for the benefit of the Secured Parties, a security interest in and lien on, all right, title or interest in or to any and all of the following assets and properties now owned or at any time hereafter acquired by such Grantor or in which such Grantor now has or at any time in the future may acquire any right, title or interest (collectively, the "Patent Collateral"):

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(a) all letters patent of the United States or the equivalent thereof in any other country, all registrations and recordings thereof, and all applications for letters patent of the United States or the equivalent thereof in any other country, including registrations, recordings and pending applications in the United States Patent and Trademark Office or any similar offices in any other country, including those listed on Schedule I (the "Patents"), and all reissues, continuations, divisions, continuations-in-part, renewals or extensions thereof, and the inventions disclosed or claimed therein, including the right to make, use and/or sell the inventions disclosed or claimed therein.

SECTION 3. <u>Security Agreement.</u> The security interests granted to the Collateral Agent herein are granted in furtherance, and not in limitation of, the security interests granted to the Collateral Agent pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the Patent Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 4. Execution in Counterparts. This Agreement may be executed in any number or counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

SECTION 5. <u>Applicable Law.</u> This Agreement shall be construed in accordance with and governed by the laws of the State of New York.

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IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

CHS/COMMUNITY HEALTH SYSTEMS, INC.,

by

Name: Rachel A. Seifert

Title: Executive Vice President, Secretary

and General Counsel

HEALTH MANAGEMENT ASSOCIATES, LLC, formerly Health Management Associates, Inc.

by

Name: Rachel A. Seifert

Title: Executive Vice President &

Secretary

REEL: 041598 FRAME: 0457

CREDIT SUISSE AG, CAYMAN ISLANDS

BRANCH, as Collateral Agent

by

Namez Robert Hetu

Title: Authorized Signatory

by

Name: Warren Van Heyst Title: Authorized Signatory

# Schedule I

# PATENTS AND TRADEMARKS

## PATENT REGISTRATIONS AND APPLICATIONS

### U.S. Patents

PATENT NO.	DOCKET NO.	OWNER	TITLE	PRIMARY INVENTOR	INVENTOR(S)	FILE DATE & ISSUE DATE	Products
	HMA0004 KBC	Management Associates, LLC	eMR Machine Learning (NLP) - Application Entitled: "Automated Learning For Medical Data		Brian Swanson, Ken Chatfield, Chris Smith	12/17/2013	Teneo, APD, eDIS, ClinDocs

# U.S. Patent Applications

APPLICATION NO.	DOCKET NO.	OWNER	TITLE	PRIMARY INVENTOR	INVENTOR(S)	FILE DATE	HMA Development Products Leveraging Patents
PCT/US13/40412	HMA0001- PCT KBC	Management	NLP - Application Entitled: "MEDICAL RECORD GENERATION AND PROCESSING"	Kenneth R. Chatfield	Kenneth R. Chatfield, Christopher B. Smith Brian Murphy		Teneo, ClinDocs, APD, eDIS, SafeAdmin, MAP
13/594,724	HMA0002 MRC	Health Management Associates, LLC		Nathan S. Hilliard	Nathan S. Hilliard		TrueSmart Room and SafeAdmin
61/737,630	HMA0005- PROV KBC	Associates, LLC	High Availability Healthcare Platform (HAHP) - Application Entitled: "HIGH AVAILABILITY HEALTHCARE PLATFORM"	Chris Smith	Chris Smith, Ryan Kennedy		All HMA developed products

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APPLICATION NO.	DOCKET NO.	OWNER	TITLE	PRIMARY INVENTOR	INVENTOR(S)	FILE DATE or STATUS	HMA Development Products Leveraging Patents
14/107,213	HMA0005 KBC	Health Management Associates, LLC	High Availability Healthcare Platform (HAHP) - Application Entitled: "HIGH AVAILABILITY HEALTHCARE PLATFORM"	Chris Smith	Chris Smith, Ryan Kennedy	12/16/2013	All HMA developed products
61/737,219	HMA0006- PROV KBC	Health Management Associates, LLC	Data Security: Implementing a multi- instance, multi-tier data storage architecture. HMA0031 was split out. Application Entitled: "MULTI-TIER DATA STORAGE"	Chris Smith	Keith Pinter, Chris Smith, Ryan Kennedy	12/14/2012	All HMA developed products
14/107,087	HMA0006 KBC	Health Management Associates, LLC	Data Security: Implementing a multi- instance, multi-tier data storage architecture. HMA0031 was split out. Application Entitled: "MULTI-TIER DATA STORAGE"	Chris Smith	Keith Pinter, Chris Smith, Ryan Kennedy	12/16/2013	All HMA developed products
13/689,166	HMA0008 (as indicated on the folder saved on the server) MRC	Health Management Associates, LLC	Charge Capture - Application Entitled: "Charge Capture Processing System"	Kenneth R. Chatfield	Brian Swanson Chris Smith Ken Chatfield	11/29/2012	Teneo, ClinDocs, eDIS, SafeAdmin, MAP
61,737,644	HMA0009- PROV KBC	Health Management Associates, LLC	Digital Brochures - Application Entitled: "DIGITAL BROCHURES"	Chris Smith	Eric Waller and Chris Smith	12/14/2012	HIE, Patient Portal, Bed Portal
14/107,276	HMA0009- KBC	Health Management Associates, LLC	Digital Brochures - Application Entitled: "DIGITAL BROCHURES"	Chris Smith	Eric Waller and Chris Smith	12/16/2013	HIE, Patient Portal, Bed Portal
61/764,426	HMA0010- PROV KBC	Health Management Associates, LLC	Targeted Medical Marketing - Application Entitled: "TARGETED HEALTHCARE MARKETING"	Chris Smith	Eric Waller and Chris Smith	2/13/2013	HIE and Patient Portal

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APPLICATION NO.	DOCKET NO.	OWNER	TITLE	PRIMARY INVENTOR	INVENTOR(S)	FILE DATE or STATUS	HMA Development Products Leveraging Patents
13/715,945	HMA0011 KBC	Health Management Associates, LLC	Great Docs Now - Application entitled: Clinician Identification, Selection, And Appointment System	Chris Smith	Eric Waller and Chris Smith	12/14/2012	HIE and Patient Portal
13/767,586	HMA0011-C1 KBC	Health Management Associates, LLC	Great Docs Now - Application entitled: Clinician Identification, Selection, And Appointment System	Chris Smith	Eric Waller and Chris Smith	2/14/2013	HIE and Patient Portal
13/715,932	HMA0012 KBC	Health Management Associates, LLC	Wait Times and Pre- Arrival Check-In - Application Entitled: "Pre-Arrival Medical Facility Patient Check-In"	Chris Smith	Eric Waller and Chris Smith	12/14/2012	HIE and Patient Portal
13/713,336	HMA0013 MRC	Health Management Associates, LLC	ClinDocs - Application Entitled: "Clinical Documentation Interface"	Chris Smith	Chris Smith and Mike Worman	12/17/2012	ClinDocs, MAP, Patient Portal, Bed Portal, HIE
1.3/759,685	HMA0013-C1 MRC	Health Management Associates, LLC	ClinDocs - Application Entitled: "Clinical Documentation Interface"	Chris Smith	Chris Smith and Mike Worman	2/5/2013	ClinDocs, MAP, Patient Portal, Bed Portal, HIE
61/819,372	HMA0019- PROV	Health Management Associates, LLC	Optical Scanning To Verify Administration Of A Healthcare Resource	Chris Smith	Chris Smith and Ryan Kennedy	5/3/2013	ClinDocs, MAP, Patient Portal, Bed Portal, HIE, SafeAdmin
61/736,730	HMA0022- PROV MRC	Health Management Associates, LLC	Interoperability with New User Sensing Technologies - Application Entitled: "Interoperability with New User Sensing Technologies"	Kenneth R. Chatfield	Ken Chatfield and Chris Smith	12/13/2012	TrueSmart Room and SafeAdmin

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APPLICATION NO.	DOCKET NO.	OWNER	TITLE	PRIMARY INVENTOR	INVENTOR(S)	FILE DATE or STATUS	HMA Development Products Leveraging Patents
14/106,243	HMA0022 MRC	Health Management Associates, LLC	Interoperability with New User Sensing Technologies - Application Entitled: "Interoperability with New User Sensing Technologies"	Kenneth R. Chatfield	Ken Chatfield and Chris Smith		TrueSmart Room and SafeAdmin
13/673,587	HMA0023 MRC	Health Management Associates, LLC	Patient Time-Line - Application Entitled: "Patient Timeline Interface"	Chris Smith	Paul Salmon, Mike Worman, Chris Smith, Ken Chatfield	11/9/2012	MAP,Meanful Use, HIE, Patient Portal, ClinDocs
13/673,605	HMA0024 MRC	Health Management Associates, LLC	Patient-Centered Dashboard - Application Entitled: "Patient-Centered Dashboard"	Chris Smith	Paul Salmon, Mike Worman, Chris Smith, Ken Chatfield	11/9/2012	MAP,Meanful Use, HIE, Patient Portal, ClinDocs
61/766,593	HMA0025- PROV KBC	Health Management Associates, LLC	Physician Billing Gateway - Application Entitled: "HEALTHCARE BILLING GATEWAY"	Stuart Arnold	Jim Jordan, Jim Prentice, Paul Hansen,Stuart Arnold	2/19/2013	
61/733,051	HMA0029- PROV KBC		STRATEGIC SURVEY AND FEEDBACK SYSTEM AND METHOD TO FACILITATE AUTOMATED, REAL-TIME, DYNAMIC RESPONSES AND FEEDBACK PROCESSING - Application Entitled: "STRATEGIC SURVEY AND FEEDBACK SYSTEM AND METHOD TO FACILITATE AUTOMATED, REAL- TIME, DYNAMIC RESPONSES AND FEEDBACK PROCESSING'	Chris Smith	Chris Smith, Gretta Smith, Gary Tomcik, Michael Heyner	12/4/2012	Hi5 Employee Product

APPLICATION NO.	DOCKET NO.	OWNER	TITLE	PRIMARY INVENTOR	INVENTOR(S)	FILE DATE	HMA Development Products Leveraging Patents
14/097,221	HMA0029 KBC		STRATEGIC SURVEY AND FEEDBACK SYSTEM AND METHOD TO FACILITATE AUTOMATED, REAL-TIME, DYNAMIC RESPONSES AND FEEDBACK PROCESSING - Application Entitled: "STRATEGIC SURVEY AND FEEDBACK SYSTEM AND METHOD TO FACILITATE AUTOMATED, REAL- TIME, DYNAMIC RESPONSES AND FEEDBACK PROCESSING'		Chris Smith, Gretta Smith, Gary Tomcik, Michael Heyner		Hi5 Employee Product
61/737,238	HMA0030- PROV KBC	Health Management Associates, LLC	FALL PREVENTION SYSTEM AND METHOD LEVERAGING A PREDICTION ALGORITHM COMBINED REAL TIME MONITORING - Application Entitled: "FALL PREVENTION SYSTEM AND METHOD LEVERAGING A PREDICTION ALGORITHM AND COMBINED REAL TIME MONITORING"	Chris Smith	Chris Smith Gretta Smith		TrueSmart Room and SafeAdmin

APPLICATION NO.	DOCKET NO.	OWNER	TITLE	PRIMARY INVENTOR	INVENTOR(S)	FILE DATE or STATUS	HMA Development Products Leveraging Patents
	HMA0030 KBC	Management Associates, LLC	FALL PREVENTION SYSTEM AND METHOD LEVERAGING A PREDICTION ALGORITHM COMBINED REAL TIME MONITORING - Application Entitled: "FALL PREVENTION SYSTEM AND METHOD LEVERAGING A PREDICTION ALGORITHM AND COMBINED REAL TIME MONITORING"	Chris Smith	Chris Smith	12/16/2013	TrueSmart Room and SafeAdmin
	HMA0031- PROV	Management Associates, LLC	Data Security: Parsing a set of medical data into two or more subsets, each of	Chris Smith	Keith Pinter, Chris	12/14/2012	НАНР
	HMA0031 KBC	Management Associates, LLC	Data Security: Parsing a set of medical data into two or more subsets, each of	Chris Smith	Keith Pinter, Chris	12/16/2013	НАНР
1 '	HMA0032- PROV	Health Management Associates, LLC	Smart Healthcare Room	1	Kent Chatfield, Chris Smith	5/3/2013	TrueSmart Room
	HMA0033- PROV	Management Associates, LLC	Browser Side, Auto Updated, Two Tiered Cache With Encryption And Optimized Pre-Fetching For Fast User Interface Responses	Chris Strahorn	Chris Strahorn	5/8/2013	All HMA developed products and HAHP

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**RECORDED: 03/16/2017**