PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5019762

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
BMC SOFTWARE, INC.	05/29/2018
BLADELOGIC, INC.	05/29/2018

RECEIVING PARTY DATA

Name:	CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS COLLATERAL AGENT
Street Address:	ATTN: ARLENE HILL-FORTE
Internal Address:	7033 LOUIS STEPHENS DRIVE
City:	RALEIGH
State/Country:	NORTH CAROLINA
Postal Code:	27709

PROPERTY NUMBERS Total: 19

Property Type	Number
Application Number:	15940121
Application Number:	15915754
Application Number:	15699571
Application Number:	15699582
Application Number:	15783355
Application Number:	15680718
Application Number:	15704926
Application Number:	15700932
Application Number:	15650212
Application Number:	15797714
Application Number:	15672984
Application Number:	15620341
Application Number:	15593232
Application Number:	15864712
Application Number:	15620447
Application Number:	15809380
Application Number:	15658896
Application Number:	15852758

PATENT

504973016 REEL: 046176 FRAME: 0477

Property Type	Number			
Application Number:	15826192			

CORRESPONDENCE DATA

Fax Number: (202)470-6464

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

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Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	0081 - 2018 IP SUPPLEMENT	
NAME OF SUBMITTER:	JOSEPH F. KEY, REG. NO. 44,827	
SIGNATURE:	/Joseph F. Key, Reg. No. 44827/	
DATE SIGNED:	06/22/2018	

Total Attachments: 6

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IP SUPPLEMENT - PATENTS

This IP SUPPLEMENT - PATENTS, dated as of May, 29, 2018, is delivered pursuant to and supplements (i) the Security Agreement, dated as of September 10, 2013 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement"), by and among the Grantors named therein and Credit Suisse AG, Cayman Islands Branch, as the Collateral Agent, and (ii) the Patent Security Agreement, dated as of September 10, 2013 (the "Agreement") executed by Grantor. Capitalized terms used herein not otherwise defined herein shall have the meanings ascribed thereto in the Agreement.

Grantor grants to the Collateral Agent a security interest in all of Grantor's right, title and interest in and to the Patent Collateral set forth on Schedule A annexed hereto. All such Patent Collateral shall be deemed to be part of the Patent Collateral and shall be hereafter subject to each of the terms and conditions of the Security Agreement and the Agreement.

IN WITNESS WHEREOF, Grantor has caused this IP Supplement to be duly executed and delivered by its duly authorized officer as of the date first set forth above.

BMC SOPTWARE, INC

Ву:_

Name: Stephen B. Solcher Title: Senior Vice President & Chief Financial Officer

BLADEŁOGIC, INC

By:

Name: Stophen B. Solcher

Title: President

SCHEDULE A TO IP SUPPLEMENT - PATENTS

Additional US Patents Issued!:

APPLN#	PATENT #	TITLE	COUNTRY	STATUS	OWNER
14467743	9710569	SERVICE DESK DATA TRANSFER INTERFACE	United States of America	Issued	BMC Software, Inc.
14457768	9792387	SERVICE DESK DATA TRANSFER INTERFACE	United States of America	Issued	BMC Software, Inc.
11538377	9792348	OVERLAY DATASET	United States of America	issued	BMC Software, Inc.
11956498	9779181	DYNAMIC FOLDING OF LISTED ITEMS FOR DISPLAY	United States of America	issued	BMC Software, Inc.
14802507	9794110	METHOD AND SYSTEM FOR SIMPUFYING DISTRIBUTED SERVER MANAGEMENT	United States of America	Issued	BladeLogic Inc.
14463236	9753811	UNOBTRUSIVE COPIES OF ACTIVELY USED COMPRESSED INDICES	United States of America	Issued	BMC Software, Inc.
14836517	9766935	AUTOMATING APPLICATION PROVISIONING FOR HETEROGENEOUS DATACENTER ENVIRONMENTS	United States of America	issued	BMC Software, Inc.
12628155	9767181	EXTENDING A DATABASE RECOVERY POINT AT A DISASTER RECOVERY SITE	United States of America	Issued	BMC Software, Inc.
14513676	9875135	UTILITY-OPTIMIZED SCHEDUUNG OF TIME-SENSITIVE TASKS IN A RESOURCE-CONSTRAINED ENVIRONMENT	United States of America	Issued	BMC Software, Inc.
14659002	9760589	MECHANISM FOR DEPRECATING OBJECT ORIENTED DATA	United States of America	Issued	BMC Software, Inc.
12767285	9710938	GRAPH EXPANSION MINI-VIEW	United States of America	Issued	8MC Software, Inc.
14635489	9866375	MULTI-LEVEL KEY MANAGEMENT	United States of America	Issued	BladeLogic Inc.
12847949	9805322	APPLICATION BLUEPRINT AND DEPLOYMENT MODEL FOR DYNAMIC BUSINESS SERVICE MANAGEMENT (BSM)	United States of America	issued	BMC Software, Inc.
14682804	9652503	METHODS AND APPARATUS FOR MONITORING EXECUTION OF A DATABASE QUERY PROGRAM	United States of America	Issued	BMC Software, Inc.

³ Please note some of these patents were listed as patent applications previously and have now granted.

APPLN #	PATENT #	TITLE	COUNTRY	STATUS	OWNER
13251190	9773032	PROVISION OF INDEX RECOMMENDATIONS FOR DATABASE ACCESS	United States of America	Issued	BMC Software, Inc.
14568958	9727315	AUTOMATED BLUEPRINT ASSEMBLY FOR ASSEMBLING AN APPLICATION	United States of America	Issued	BMC Software, Inc.
14821376	9841962	HYBRID-CLOUD INFRASTRUCTURES	United States of America	Issued	BladeLogic Inc.
13631328	9805319	APPLICATION OF BUSINESS PROCESS MANAGEMENT STANDARDS FOR DYNAMIC INFORMATION TECHNOLOGY MANAGEMENT	United States of America	Issued	BMC Software, Inc.
13731211	9734237	PROGRESSIVE ANALYSIS FOR BIG	United States	Issued	BMC Software, Inc.
13731309	9631934	MANAGEMENT OF ANNOTATED LOCATION AWARE ASSETS	United States of America	Issued	BMC Software, Inc.
13732292	9645833	ADDITIVE INDEPENDENT OBJECT MODIFICATION	United States of America	issued	BMC Software, Inc.
14943669	9674293	SYSTEM AND METHODS FOR REMOTE ACCESS TO IMS DATABASES	United States of America	Issued	8MC Software, Inc.
15363860	9760396	MANAGING A SERVER TEMPLATE	United States of America	Issued	BMC Software, Inc.
14943717	9679059	SYSTEMS AND METHODS FOR REMOTE ACCESS TO DB2 DATABASES	United States of America	Issued	BMC Software, Inc.
14877332	9852165	STORING AND RETRIEVING CONTEXT SENSTIVE DATA IN A MANAGEMENT SYSTEM	United States of America	issued	8MC Saftware, Inc.
13842072	9613070	MULTI-ENTITY NORMALIZATION	United States of America	Issued	BMC Software, Inc.
14067824	9710525	ADAPTIVE LEARNING OF EFFECTIVE TROUBLESHOOTING PATTERNS	United States of America	Issued	BMC Software, Inc.
13931560	9654473	AUTHENTICATION PROXY AGENT	United States of America	Issued	BMC Software, Inc.
14145216	9819547	SERVER PROVISIONING BASED ON JOB HISTORY ANALYSIS	United States of America	Issued	BMC Software, Inc.
14310539	9712516	MONITORING SIGNED RESOURCES TRANSFERRED OVER A NETWORK	United States of America	fssued	BMC Software, Inc.
14574742	9864798	GENERATION OF SUPPORT DATA RECORDS USING NATURAL LANGUAGE PROCESSING	United States of America	Issued	BMC Software, Inc.
14579436	9659051	ENFORCING REFERENTIAL INTEGRITY FOR OBJECT DATA DOCUMENTS	United States of America	Issued	BladeLogic Inc.
14840708	9680657	COST OPTIMIZATION IN DYNAMIC WORKLOAD CAPPING	United States of America	issued	BMC Software, Inc.
13900441	9819729	APPLICATION MONITORING FOR CLOUD-BASED ARCHITECTURES	United States of America	issued	BMC Software, Inc.

Inc.
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Additional US Patents Pending:

APPLN#	PUB#	TITLE	COUNTRY	STATUS	OWNER
15940121		GENERIC DISCOVERY FOR COMPUTER NETWORKS	United States of America	Pending	BMC Software, Inc
15915754		SYSTEM AND METHOD FOR BUILDING BUSINESS SERVICE MODEL	United States of America	Pending	BMC Software, Inc
15699571	US-2018-0011916-A1	OVERLAY DATASET	United States of America	Published	BIMC Software, Inc
15699582	US-2018-0011917-A1	OVERLAY DATASET	United States of America	Published	BMC Software, Inc
15783355	US-2018-0059747-A1	METHOD AND SYSTEM FOR SIMPLIFYING DISTRIBUTED SERVER MANAGEMENT	United States of America	Published	BladeLogic Inc.
15680718	US-2017-0364410-A1	UNOBTRUSIVE COPIES OF ACTIVELY USED COMPRESSED INDICES	United States of America	Published	BMC Software, Inc
15704926	US-2018-0075127-A1	EXTENDING A DATABASE RECOVERY POINT AT A DISASTER RECOVERY SITE	United States of America	Published	BMC Software, Inc
15700932	US-2018-0004794-A1	MECHANISM FOR DEPRECATING OBJECT ORIENTED DATA	United States of America	Published	BMC Software, Inc.
15650212	US-2017-0323464-A1	GRAPH EXPANSION MINI- VIEW	United States of America	Published	8MC Software, Inc.
15797714	US-2018-0068239-A1	APPLICATION OF BUSINESS PROCESS MANAGEMENT STANDARDS FOR DYNAMIC INFORMATION TECHNOLOGY MANAGEMENT	United States of America	Published	BMC Software, Inc.
15672984	U5-2017-0364584-A1	PROGRESSIVE ANALYSIS FOR BIG DATA	United States of America	Published	BMC Software, Inc.
15620341	US-2017-0277787-A1	SYSTEMS AND METHODS FOR REMOTE ACCESS TO DB2 DATABASES	United States of America	Published	BMC Software, Inc.
15593232	US-2017-0250984-A1	AUTHENTICATION PROXY AGENT	United States of America	Published	BMC Software, Inc.
15864712		GENERATION OF SUPPORT DATA RECORDS USING NATURAL LANGUAGE PROCESSING	United States of America	Pending	BMC Software, Inc.
15620447	US-2017-0279623-A1	OYNAMIC WORKLOAD CAPPING	United States of America	Published	BMC Software, Inc.

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Appln#	PUB#	TITLE	COUNTRY	STATUS	OWNER
15809380	US-2018-0077224-A1	APPLICATION MONITORING FOR CLOUD- BASED ARCHITECTURES	United States of America	Published	BMC Software, Inc.
15658896		SYSTEMS AND METHODS FOR INTERCEPTING ACCESS TO MESSAGING SYSTEMS	United States of America	Pending	BMC Software, Inc.
15852758		AUTOMATIC SERVER CLASSIFICATION IN CLOUD ENVIRONMENTS	United States of America	Pending	BMC Softwere, Inc.
15826192		SYSTEMS AND METHODS FOR RECOVERY OF CONSISTENT DAYABASE INDEXES	United States of America	Pending	BMC Software, Inc.
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