

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2576831

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>THOMAS JOSEPH</td> <td>07/30/2013</td> </tr> <tr> <td>JITENDRA BHIMAVARAPU</td> <td>08/01/2013</td> </tr> <tr> <td>MATTHIAS VON RUEDEN</td> <td>08/01/2013</td> </tr> </tbody> </table>		Name	Execution Date	THOMAS JOSEPH	07/30/2013	JITENDRA BHIMAVARAPU	08/01/2013	MATTHIAS VON RUEDEN	08/01/2013				
Name	Execution Date												
THOMAS JOSEPH	07/30/2013												
JITENDRA BHIMAVARAPU	08/01/2013												
MATTHIAS VON RUEDEN	08/01/2013												
RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>BANK OF AMERICA CORPORATION</td> </tr> <tr> <td>Street Address:</td> <td>HEARST TOWER</td> </tr> <tr> <td>Internal Address:</td> <td>NC1-027-20-05, 214 N. TRYON STREET</td> </tr> <tr> <td>City:</td> <td>CHARLOTTE</td> </tr> <tr> <td>State/Country:</td> <td>NORTH CAROLINA</td> </tr> <tr> <td>Postal Code:</td> <td>28255</td> </tr> </table>		Name:	BANK OF AMERICA CORPORATION	Street Address:	HEARST TOWER	Internal Address:	NC1-027-20-05, 214 N. TRYON STREET	City:	CHARLOTTE	State/Country:	NORTH CAROLINA	Postal Code:	28255
Name:	BANK OF AMERICA CORPORATION												
Street Address:	HEARST TOWER												
Internal Address:	NC1-027-20-05, 214 N. TRYON STREET												
City:	CHARLOTTE												
State/Country:	NORTH CAROLINA												
Postal Code:	28255												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Patent Number:</td> <td>8225375</td> </tr> </tbody> </table>		Property Type	Number	Patent Number:	8225375								
Property Type	Number												
Patent Number:	8225375												
CORRESPONDENCE DATA													
Fax Number:	(312)463-5001												
Phone:	312-463-5000												
Email:	aonoda@bannerwitcoff.com, BWPTOPAT@bannerwitcoff.com												
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>													
Correspondent Name:	BANNER & WITCOFF, LTD.												
Address Line 1:	TEN SOUTH WACKER DRIVE												
Address Line 2:	SUITE 3000												
Address Line 4:	CHICAGO, ILLINOIS 60606												
ATTORNEY DOCKET NUMBER:	007131.00650-ADD'TL INVTR												
NAME OF SUBMITTER:	KENNETH F. SMOLIK												

Signature:	/Kenneth F. Smolik/
Date:	10/14/2013
Total Attachments: 3 source=Assignment650#page1.tif source=Assignment650#page2.tif source=Assignment650#page3.tif	

WHEREAS, I, **Thomas Joseph**, ("Assignor"), a citizen of **United States**, residing in **Aurora, Illinois**, have invented certain new and useful inventions entitled "**Content Service Bus Framework**". If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize my attorney to insert the filing date and application number below after they become known and prior to filing the recordation.

U.S. Application No. 12/710,712 filed 02/23/2010.

WHEREAS, **BANK OF AMERICA CORPORATION** ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:

NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all divisions, reissues, continuations and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 30 day of July, 2013.

  
Thomas Joseph, Assignor

## ASSIGNMENT

WHEREAS, I, **Jitendra Bhimavarapu**, ("Assignor"), a citizen of **India**, residing in **Chicago, Illinois**, have invented certain new and useful inventions entitled "**Content Service Bus Framework**". If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize my attorney to insert the filing date and application number below after they become known and prior to filing the recordation.  
U.S. Application No. 12/710,712 filed 02/23/2010

WHEREAS, **BANK OF AMERICA CORPORATION** ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:

NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all divisions, reissues, continuations and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 1 day of Aug, 2013.

  
\_\_\_\_\_  
Jitendra Bhimavarapu, Assignor

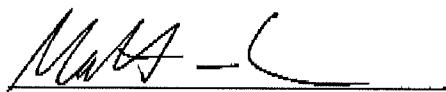
## ASSIGNMENT

WHEREAS, I, **Matthias Von Rueden**, ("Assignor"), a citizen of **Germany**, residing in **Chicago, Illinois**, have invented certain new and useful inventions entitled "**Content Service Bus Framework**". If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize my attorney to insert the filing date and application number below after they become known and prior to filing the recordation.  
U.S. Application No. 12/710,712 filed 02/23/2010

WHEREAS, **BANK OF AMERICA CORPORATION** ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:

NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all divisions, reissues, continuations and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

8 IN WITNESS WHEREOF, I have hereunto set my hand and seal this 1 day of 20 13.

  
Matthias Von Rueden, Assignor