

PATENT ASSIGNMENT

Electronic Version v1.1
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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>Fabrice Saffre</td> <td>12/08/2011</td> </tr> <tr> <td>Hanno Hildmann</td> <td>12/14/2011</td> </tr> <tr> <td>Sebastien Matthieu Rene Nicolas</td> <td>12/13/2011</td> </tr> </tbody> </table>		Name	Execution Date	Fabrice Saffre	12/08/2011	Hanno Hildmann	12/14/2011	Sebastien Matthieu Rene Nicolas	12/13/2011		
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Khalifa University of Science, Technology, and Research</td> </tr> <tr> <td>Street Address:</td> <td>P.O. Box 127788</td> </tr> <tr> <td>City:</td> <td>Abu Dhabi</td> </tr> <tr> <td>State/Country:</td> <td>UNITED ARAB EMIRATES.</td> </tr> </table>		Name:	Khalifa University of Science, Technology, and Research	Street Address:	P.O. Box 127788	City:	Abu Dhabi	State/Country:	UNITED ARAB EMIRATES.		
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<table border="1"> <tr> <td>Name:</td> <td>British Telecommunications plc</td> </tr> <tr> <td>Street Address:</td> <td>81 Newgate Street</td> </tr> <tr> <td>City:</td> <td>London</td> </tr> <tr> <td>State/Country:</td> <td>UNITED KINGDOM</td> </tr> <tr> <td>Postal Code:</td> <td>EC1A 7AJ</td> </tr> </table>		Name:	British Telecommunications plc	Street Address:	81 Newgate Street	City:	London	State/Country:	UNITED KINGDOM	Postal Code:	EC1A 7AJ
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<table border="1"> <tr> <td>Name:</td> <td>Emirates Telecommunications Corporation</td> </tr> <tr> <td>Street Address:</td> <td>P.O. Box 3838</td> </tr> <tr> <td>City:</td> <td>Abu Dhabi</td> </tr> <tr> <td>State/Country:</td> <td>UNITED ARAB EMIRATES.</td> </tr> </table>		Name:	Emirates Telecommunications Corporation	Street Address:	P.O. Box 3838	City:	Abu Dhabi	State/Country:	UNITED ARAB EMIRATES.		
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PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13339763</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13339763						
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Application Number:	13339763										
CORRESPONDENCE DATA											
Fax Number:	(216)241-0816										
Phone:	(216) 622-8844										

CH \$40.00 13339763

Email: smoorhead@calfee.com

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

Correspondent Name: Sean Moorhead

Address Line 1: The Calfee Building

Address Line 2: 1405 East Sixth Street

Address Line 4: Cleveland, OHIO 44114

ATTORNEY DOCKET NUMBER:

27154/04019

NAME OF SUBMITTER:

Sean T. Moorhead

Total Attachments: 42

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**ASSIGNMENT OF INVENTION
AND ASSOCIATED INTELLECTUAL PROPERTY RIGHTS**

Parties:

1 'The Inventor'

Fabrice Saffre

Etisalat BT Innovation Centre, Khalifa University, Abu Dhabi, United Arab Emirates

2 'The Employer'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

and

*British Telecommunications plc
81 Newgate Street, London, EC1A 7AJ, United Kingdom*

3 'The Assignee'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

and

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and

*Emirates Telecommunications Corporation
Etisalat Building, Intersection of Zayed the 1st Street and Sheikh Rashid Bin Saeed Al
Maktoum Street, PO Box 3838, Abu Dhabi, United Arab Emirates*

Recitals:

(A) The Inventor is the inventor of the invention or inventions entitled Method and System for Assignment of Mobile Clients which is described in the abstract annexed hereto and is the subject of Case No. SXH/FP6783310 of the Assignee's patent attorneys, Mewburn Ellis LLP (such invention or inventions being hereafter called "the Invention").

(B) The Inventor was an employee of the Employer when the Invention was made.

(C) The Assignee currently intends to file (in the name of the inventor(s) of the Invention, as required by United States law) one or more United States utility patent application(s) for the Invention and possibly subsequent patent applications in various jurisdictions claiming priority from the said United States utility patent application(s) (the United States utility application(s) together with any subsequent applications for the Invention and/or claiming priority from any of the said United States utility patent applications being hereafter called "the Patent Applications")

S.F. 08/12/2011

18/12/11

(D) The Inventor, the Employer and the Assignee have agreed that the Inventor and the Employer will each assign to the Assignee for the consideration mentioned below all such present and future rights title and interest as they each may own in to under and arising from the Invention and the Patent Applications, including without limitation any further contributions that the Inventor may make in the future to the development or improvement of the Invention and any matter that shall be contained in any of the Patent Applications.

Operative provisions:

In consideration for the payment of One U.S. Dollar by the Assignee to each of the Inventor and the Employer, the receipt and sufficiency of which are hereby acknowledged by the Inventor and by the Employer:-

1 The Inventor and the Employer HEREBY SELL ASSIGN AND TRANSFER to the Assignee absolutely and free from encumbrances, by way of current assignment of both existing and future rights and property:

1.1 all such legal and beneficial rights title and interest as they each may own or be entitled to in Canada and the United States and all other countries of the world in to under and arising from the Invention and the Patent Applications and all matter that shall be contained in the Patent Applications, and all national and regional phases and any and all divisions, continuations and continuations-in-part of all of the aforesaid applications, and any and all patents that may be granted pursuant to any of them for the full period thereof, including any re-issues, re-examinations, renewals, extensions and Supplementary Protection Certificates, and including all rights and powers arising or accrued therefrom including the right to sue for damages and other remedies in respect of any infringement of any such rights before on or after the date hereof and to retain any damages obtained as a result of such action;

1.2 all such rights as they each may have to apply for prosecute and obtain patents and other intellectual property protection anywhere in the world in respect of the Invention and the invention(s) that shall be disclosed in and all matter that shall be contained in the Patent Applications to the intent that any patents or other intellectual property protection for the Invention and for such invention(s) and matter may be applied for and shall be granted in the name of and shall vest in the Assignee or its successors or assigns;

1.3 all such rights as they each may have to claim priority from any and all of the Patent Applications in any and all applications for patent protection for the Invention and the invention(s) that shall be disclosed in the Patent Applications, such right to be enjoyed by the Assignee as from the date of filing of each patent application from which priority is claimed;

to the intent that the Assignee shall have and hold the rights title and interest hereby assigned as fully and entirely as the same would have been held and enjoyed by the Inventor or by the Employer had this assignment not been made.

2 The Inventor and the Employer and the Assignee HEREBY GRANT the firm of Mewburn Ellis LLP the power to insert in the Schedule to this Assignment any further identification of any future patent applications in Canada or the United States or any other countries or regions of the world which shall fall within the scope of clause 1 above, as may be necessary or desirable in order to comply with the rules of the United States Patent Office or the Canadian Patent Office or any other patent office for recordation of this document. It is understood and agreed that the Assignee's attorneys Mewburn Ellis LLP have represented only the Assignee and will continue to represent only the Assignee and its successors and assigns with respect to this Assignment.

3 The Inventor and the Employer each HEREBY UNDERTAKE that at the request and cost of the Assignee or its successors or assigns they will at all times hereafter promptly do all such acts and execute all such documents (including but not limited to documents required to be signed by or on behalf of inventors or assignors in the course of any and all Canadian or United

S.F. 08/02/2011

18/12/11

PATENT
REEL: 027648 FRAME: 0578

States or any other patent applications which relate to the Invention or to any invention(s) that shall be disclosed in any of the Patent Applications and any and all divisionals, continuations and continuations-in-part of any such applications) as may be reasonably necessary or desirable to secure or to provide further evidence of the vesting in the Assignee or its successors or assigns of all legal and beneficial rights title and interest intended to be assigned to the Assignee hereunder and to confirm the title of the Assignee or its successors or assigns to all such rights title and interest and to assist (in the course of litigation or interference or any other proceedings or otherwise) in the resolution of any question concerning the Invention or invention(s) that shall be disclosed in the Patent Applications or any application for patent or other intellectual property protection for any of the said inventions or any intellectual property protection granted pursuant to any such application.

4 The Inventor and the Employer HEREBY REQUEST the US Commissioner of Patents and the relevant authorities in all countries of the world to issue any patents granted for the Invention or the invention(s) that shall be disclosed in the Patent Applications in the name of the Assignee or its successors or assigns in accordance with this Assignment.

5 This assignment and undertaking shall be binding upon the heirs, executors, administrators, successors and/or assigns of the Inventor and of the Employer and shall enure to the benefit of any heirs, executors, administrators, successors and/or assigns of the Assignee.

6 This agreement shall be governed by and interpreted in accordance with the laws of England, and the courts of England shall have exclusive jurisdiction to settle any disputes which may arise in connection with this agreement.

AS WITNESS the signatures of the Inventor and of duly authorised officers of the Employer and the Assignee

THIS ASSIGNMENT MAY BE EXECUTED IN COUNTERPARTS

S.F.
08/12/2011

A
18/12/11

PATENT
REEL: 027648 FRAME: 0579

SIGNED for and on behalf of)

the 1st EMPLOYER)

at: Abu Dhabi)

on: 15/12/11)

in the presence of:)

Witness

Signature: N. AZARNI

Name: Nader Azarni

Address: KUSTAR, Abu Dhabi, UAE.

Signature: 

Name: Dr. Mohammed Al-Mualla

Position: Interim Provost

SIGNED for and on behalf of)

the 2nd EMPLOYER)

at:)

on:)

in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)

the 1st CO-APPLICANT)

at: Abu Dhabi)

on: 15/12/11)

in the presence of:)

Witness

Signature: N. AZARNI

Name: Nader Azarni

Address: KUSTAR, Abu Dhabi, UAE.

Signature: 

Name: Dr. Mohammed Al-Mualla

Position: Interim Provost

A
15/12/11



S.F. 08/12/2011
PATENT

REEL: 027648 FRAME: 0581

SIGNED for and on behalf of)

the 2nd CO-APPLICANT)

at:)

on:)

in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)

the 3rd CO-APPLICANT)

at: Abu Dhabi)

on: 15/12/2011)

in the presence of:)

Witness

Signature: N. AZARMI

Name: Nader Azarmi

Address: KUSTAR, Abu Dhabi, UAE.

Signature: Abd Aziz Al Mutawa

Name: Abd Aziz Al Mutawa

Position: GSUP/Technology Innovations

A

15/12/11

S.F.

15/12/11

08/12/2011

PATENT

REEL: 027648 FRAME: 0582

ANNEX – ABSTRACT OF THE INVENTION

This invention relates to assignment of mobile clients (such as mobile telephones or software agents) to mainly stationary servers (such as mobile network base stations or computer servers) with the objective of reducing or minimizing the number of active servers. Once the number of users of a server drops below a specified level, the server may be deactivated resulting in power and efficiency savings. Preferably the method of the invention operates dynamically and during run time. In certain embodiments, the method can accept trade-offs in the quality of service or the number of active servers. In an embodiment of the invention, servers are arranged to “compete” with adjacent servers for their clients. This competition may be in a self-amplifying manner such that with the effect that more “popular” servers are more likely to succeed thus resulting in servers which are below a utilization threshold and can therefore be switched off.

S.F. 08/12/2011

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15/12/11

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18/12/11

PATENT
REEL: 027648 FRAME: 0583

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AND ASSOCIATED INTELLECTUAL PROPERTY RIGHTS**

Parties:

1 'The Inventor'

Fabrice Saffre

Etisalat BT Innovation Centre, Khalifa University, Abu Dhabi, United Arab Emirates

2 'The Employer'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

and

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AS WITNESS the signatures of the Inventor and of duly authorised officers of the Employer and the Assignee

THIS ASSIGNMENT MAY BE EXECUTED IN COUNTERPARTS

SCHEDULE

Identification of some, but not necessarily all, patent applications falling within the scope of clause 1 of this Assignment

[illegible]

SIGNED by)
the INVENTOR)
at:)
on:) Signature:
in the presence of:)

Witness

Signature:

Name:

Address:

SIGNED for and on behalf of)
the 1st EMPLOYER)
at:)
on:)
in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)
the 2nd EMPLOYER)
at: 81 NEWGATE STREET, LONDON)
on: 14 DECEMBER 2011)
in the presence of:)

Witness

Signature: 

Name: CHI-FAI LAM

Address: 81 NEWGATE ST.
LONDON EC1A 7AJ

Signature: 

Name:

Position:

ROGER NASH
HEAD OF PATENTS

SIGNED for and on behalf of)
the 1st CO-APPLICANT)
at:)
on:)
in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

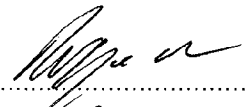
SIGNED for and on behalf of)
the 2nd CO-APPLICANT)
at: 81 NEWGATE STREET, LONDON)
on: 14 DECEMBER 2011)
in the presence of:)

Witness

Signature: 

Name: CHI-FAI LAU

Address: 81 NEWGATE ST
LONDON EC1A 7AS

Signature: 

Name: ROGER NASH

Position: HEAD OF PATENTS

SIGNED for and on behalf of)
the 3rd CO-APPLICANT)
at:)
on:)
in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

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Hanno Hildmann

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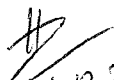
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1.2 all such rights as they each may have to apply for prosecute and obtain patents and other intellectual property protection anywhere in the world in respect of the Invention and the invention(s) that shall be disclosed in and all matter that shall be contained in the Patent Applications to the intent that any patents or other intellectual property protection for the Invention and for such invention(s) and matter may be applied for and shall be granted in the name of and shall vest in the Assignee or its successors or assigns;


1.3 all such rights as they each may have to claim priority from any and all of the Patent Applications in any and all applications for patent protection for the Invention and the invention(s) that shall be disclosed in the Patent Applications, such right to be enjoyed by the Assignee as from the date of filing of each patent application from which priority is claimed;

to the intent that the Assignee shall have and hold the rights title and interest hereby assigned as fully and entirely as the same would have been held and enjoyed by the Inventor or by the Employer had this assignment not been made.

2 The Inventor and the Employer and the Assignee HEREBY GRANT the firm of Mewburn Ellis LLP the power to insert in the Schedule to this Assignment any further identification of any future patent applications in Canada or the United States or any other countries or regions of the world which shall fall within the scope of clause 1 above, as may be necessary or desirable in order to comply with the rules of the United States Patent Office or the Canadian Patent Office or any other patent office for recordation of this document. It is understood and agreed that the Assignee's attorneys Mewburn Ellis LLP have represented only the Assignee and will continue to represent only the Assignee and its successors and assigns with respect to this Assignment.

3 The Inventor and the Employer each HEREBY UNDERTAKE that at the request and cost of the Assignee or its successors or assigns they will at all times hereafter promptly do all such acts and execute all such documents (including but not limited to documents required to be signed by or on behalf of inventors or assignors in the course of any and all Canadian or United


14/12/11


14.12.2011

PATENT
REEL: 027648 FRAME: 0592

States or any other patent applications which relate to the Invention or to any invention(s) that shall be disclosed in any of the Patent Applications and any and all divisionals, continuations and continuations-in-part of any such applications) as may be reasonably necessary or desirable to secure or to provide further evidence of the vesting in the Assignee or its successors or assigns of all legal and beneficial rights title and interest intended to be assigned to the Assignee hereunder and to confirm the title of the Assignee or its successors or assigns to all such rights title and interest and to assist (in the course of litigation or interference or any other proceedings or otherwise) in the resolution of any question concerning the Invention or invention(s) that shall be disclosed in the Patent Applications or any application for patent or other intellectual property protection for any of the said inventions or any intellectual property protection granted pursuant to any such application.

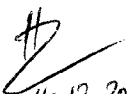

4 The Inventor and the Employer HEREBY REQUEST the US Commissioner of Patents and the relevant authorities in all countries of the world to issue any patents granted for the Invention or the invention(s) that shall be disclosed in the Patent Applications in the name of the Assignee or its successors or assigns in accordance with this Assignment.

5 This assignment and undertaking shall be binding upon the heirs, executors, administrators, successors and/or assigns of the Inventor and of the Employer and shall enure to the benefit of any heirs, executors, administrators, successors and/or assigns of the Assignee.

6 This agreement shall be governed by and interpreted in accordance with the laws of England, and the courts of England shall have exclusive jurisdiction to settle any disputes which may arise in connection with this agreement.

AS WITNESS the signatures of the Inventor and of duly authorised officers of the Employer and the Assignee

THIS ASSIGNMENT MAY BE EXECUTED IN COUNTERPARTS


14.12.2011

14/12/11

PATENT
REEL: 027648 FRAME: 0593

SCHEDULE

Identification of some, but not necessarily all, patent applications falling within the scope of clause 1 of this Assignment

Country/region	Application No.	Application Date	Title	Signature for Mewburn Ellis LLP
US	13/339763	29 DEC 2011	METHOD & SYSTEM FOR DETERMINING ALLOCATION OF CLOSURES TO SEWERS	

SIGNED by)
the INVENTOR)
at: Abu Dhabi)
on: 14.12.2011)
in the presence of:)

Signature:

Witness

Signature:
Name: Nader Azarmi
Address: KUSTAR, Abu Dhabi, UAE.

14/12/11

14.12.2011

PATENT 5/12/11
REEL: 027648 FRAME: 0594


SIGNED for and on behalf of)

the 1st EMPLOYER)

at: Abu Dhabi)

on: 15/12/11)

in the presence of:)

Signature: 

Name: Dr. Mohammed Al-Mualla

Position: Interim Provost

Witness

Signature: N. Azarmi

Name: Nader Azarmi

Address: KUSTAR, Abu Dhabi, UAE

SIGNED for and on behalf of)

the 2nd EMPLOYER)

at:)

on:)

in the presence of:)

Signature: NA

Name:

Position:

Witness

Signature:

Name:

Address:

SIGNED for and on behalf of)

the 1st CO-APPLICANT)

at: Abu Dhabi)

on: 15/12/11)

in the presence of:)

Signature: 

Name: Dr. Mohammed Al-Mualla

Position: Interim Provost

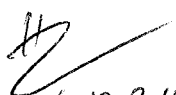
Witness

Signature: N. Azarmi

Name: Nader Azarmi

Address: KUSTAR, Abu Dhabi, UAE

A
14/12/11


14.12.2011

PATENT
15/12/11
REEL: 027648 FRAME: 0595

SIGNED for and on behalf of)

the 2nd CO-APPLICANT)

at:)

on:)

in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)

the 3rd CO-APPLICANT)

at: Abu Dhabi)

on: 14/12/2011)

in the presence of:)

Witness

Signature: N. AZARMI

Name: Nader Azarmi

Address: KUSTAR, Abu Dhabi, UAE

Signature: Abdul Aziz AL Mutawa

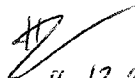
Position: GSVP/Technology Innovations


14.12.2011

14/12/11

ANNEX – ABSTRACT OF THE INVENTION

This invention relates to assignment of mobile clients (such as mobile telephones or software agents) to mainly stationary servers (such as mobile network base stations or computer servers) with the objective of reducing or minimizing the number of active servers. Once the number of users of a server drops below a specified level, the server may be deactivated resulting in power and efficiency savings. Preferably the method of the invention operates dynamically and during run time. In certain embodiments, the method can accept trade-offs in the quality of service or the number of active servers. In an embodiment of the invention, servers are arranged to “compete” with adjacent servers for their clients. This competition may be in a self-amplifying manner such that with the effect that more “popular” servers are more likely to succeed thus resulting in servers which are below a utilization threshold and can therefore be switched off.


14.12.2011


14/12/11


PATENT
15/12/11
REEL: 027648 FRAME: 0597

**ASSIGNMENT OF INVENTION
AND ASSOCIATED INTELLECTUAL PROPERTY RIGHTS**

Parties:

1 'The Inventor'

Hanno Hildmann

Etisalat BT Innovation Centre, Khalifa University, Abu Dhabi, United Arab Emirates

2 'The Employer'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

3 'The Assignee'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

and

*British Telecommunications plc
81 Newgate Street, London, EC1A 7AJ, United Kingdom*

and

*Emirates Telecommunications Corporation
Etisalat Building, Intersection of Zayed the 1st Street and Sheikh Rashid Bin Saeed Al
Maktoum Street, PO Box 3838, Abu Dhabi, United Arab Emirates*

Recitals:

(A) The Inventor is the inventor of the invention or inventions entitled Method and System for Assignment of Mobile Clients which is described in the abstract annexed hereto and is the subject of Case No. SXH/FP6783310 of the Assignee's patent attorneys, Mewburn Ellis LLP (such invention or inventions being hereafter called "the Invention").

(B) The Inventor was an employee of the Employer when the Invention was made.

(C) The Assignee currently intends to file (in the name of the inventor(s) of the Invention, as required by United States law) one or more United States utility patent application(s) for the Invention and possibly subsequent patent applications in various jurisdictions claiming priority from the said United States utility patent application(s) (the United States utility application(s) together with any subsequent applications for the Invention and/or claiming priority from any of the said United States utility patent applications being hereafter called "the Patent Applications")

(D) The Inventor, the Employer and the Assignee have agreed that the Inventor and the Employer will each assign to the Assignee for the consideration mentioned below all such present and future rights title and interest as they each may own in to under and arising from the Invention and the Patent Applications, including without limitation any further contributions that the Inventor may make in the future to the development or improvement of the Invention and any matter that shall be contained in any of the Patent Applications.

Operative provisions:

In consideration for the payment of One U.S. Dollar by the Assignee to each of the Inventor and the Employer, the receipt and sufficiency of which are hereby acknowledged by the Inventor and by the Employer:-

1 The Inventor and the Employer HEREBY SELL ASSIGN AND TRANSFER to the Assignee absolutely and free from encumbrances, by way of current assignment of both existing and future rights and property:

1.1 all such legal and beneficial rights title and interest as they each may own or be entitled to in Canada and the United States and all other countries of the world in to under and arising from the Invention and the Patent Applications and all matter that shall be contained in the Patent Applications, and all national and regional phases and any and all divisions, continuations and continuations-in-part of all of the aforesaid applications, and any and all patents that may be granted pursuant to any of them for the full period thereof, including any re-issues, re-examinations, renewals, extensions and Supplementary Protection Certificates, and including all rights and powers arising or accrued therefrom including the right to sue for damages and other remedies in respect of any infringement of any such rights before on or after the date hereof and to retain any damages obtained as a result of such action;

1.2 all such rights as they each may have to apply for prosecute and obtain patents and other intellectual property protection anywhere in the world in respect of the Invention and the invention(s) that shall be disclosed in and all matter that shall be contained in the Patent Applications to the intent that any patents or other intellectual property protection for the Invention and for such invention(s) and matter may be applied for and shall be granted in the name of and shall vest in the Assignee or its successors or assigns;

1.3 all such rights as they each may have to claim priority from any and all of the Patent Applications in any and all applications for patent protection for the Invention and the invention(s) that shall be disclosed in the Patent Applications, such right to be enjoyed by the Assignee as from the date of filing of each patent application from which priority is claimed;

to the intent that the Assignee shall have and hold the rights title and interest hereby assigned as fully and entirely as the same would have been held and enjoyed by the Inventor or by the Employer had this assignment not been made.

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4 The Inventor and the Employer HEREBY REQUEST the US Commissioner of Patents and the relevant authorities in all countries of the world to issue any patents granted for the Invention or the invention(s) that shall be disclosed in the Patent Applications in the name of the Assignee or its successors or assigns in accordance with this Assignment.

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AS WITNESS the signatures of the Inventor and of duly authorised officers of the Employer and the Assignee

THIS ASSIGNMENT MAY BE EXECUTED IN COUNTERPARTS

SCHEDULE

Identification of some, but not necessarily all, patent applications falling within the scope of clause 1 of this Assignment

[illegible]

SIGNED by _____)

the INVENTOR _____)

at:)

on:) Signature:

in the presence of: _____)

Witness

Signature:

Name:

Address:

SIGNED for and on behalf of)
the 1st EMPLOYER)
at:)
on:)
in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)
the 2nd EMPLOYER)
at:)
on:)
in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)
the 1st CO-APPLICANT)
at:)
on:)
in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)

the 2nd CO-APPLICANT)

at: 81 NEWGATE STREET, LONDON)

on: 14 December 2011)

in the presence of:)

Witness

Signature: 

Name: CHI-FAI LAU

Address: 81 NEWGATE ST.
LONDON EC1A 7AJ

Signature: 

Name: ROGER NASH

Position: HEAD OF PATENTS

SIGNED for and on behalf of)

the 3rd CO-APPLICANT)

at:)

on:)

in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

ANNEX – ABSTRACT OF THE INVENTION

This invention relates to assignment of mobile clients (such as mobile telephones or software agents) to mainly stationary servers (such as mobile network base stations or computer servers) with the objective of reducing or minimizing the number of active servers. Once the number of users of a server drops below a specified level, the server may be deactivated resulting in power and efficiency savings. Preferably the method of the invention operates dynamically and during run time. In certain embodiments, the method can accept trade-offs in the quality of service or the number of active servers. In an embodiment of the invention, servers are arranged to “compete” with adjacent servers for their clients. This competition may be in a self-amplifying manner such that with the effect that more “popular” servers are more likely to succeed thus resulting in servers which are below a utilization threshold and can therefore be switched off.

**ASSIGNMENT OF INVENTION
AND ASSOCIATED INTELLECTUAL PROPERTY RIGHTS**

Parties:

1 'The Inventor'

Sebastien Matthieu Ren'e Nicolas

Etisalat BT Innovation Centre, Khalifa University, Abu Dhabi, United Arab Emirates

2 'The Employer'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

3 'The Assignee'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

and

*British Telecommunications plc
81 Newgate Street, London, EC1A 7AJ, United Kingdom*

and

*Emirates Telecommunications Corporation
Etisalat Building, Intersection of Zayed the 1st Street and Sheikh Rashid Bin Saeed Al
Maktoum Street, PO Box 3838, Abu Dhabi, United Arab Emirates*

Recitals:

(A) The Inventor is the inventor of the invention or inventions entitled Method and System for Assignment of Mobile Clients which is described in the abstract annexed hereto and is the subject of Case No. SXH/FP6783310 of the Assignee's patent attorneys, Mewburn Ellis LLP (such invention or inventions being hereafter called "the Invention").

(B) The Inventor was an employee of the Employer when the Invention was made.

(C) The Assignee currently intends to file (in the name of the inventor(s) of the Invention, as required by United States law) one or more United States utility patent application(s) for the Invention and possibly subsequent patent applications in various jurisdictions claiming priority from the said United States utility patent application(s) (the United States utility application(s) together with any subsequent applications for the Invention and/or claiming priority from any of the said United States utility patent applications being hereafter called "the Patent Applications")

J.M.

13/12/2011



14/12/11

(D) The Inventor, the Employer and the Assignee have agreed that the Inventor and the Employer will each assign to the Assignee for the consideration mentioned below all such present and future rights title and interest as they each may own in to under and arising from the Invention and the Patent Applications, including without limitation any further contributions that the Inventor may make in the future to the development or improvement of the Invention and any matter that shall be contained in any of the Patent Applications.

Operative provisions:

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1.1 all such legal and beneficial rights title and interest as they each may own or be entitled to in Canada and the United States and all other countries of the world in to under and arising from the Invention and the Patent Applications and all matter that shall be contained in the Patent Applications, and all national and regional phases and any and all divisions, continuations and continuations-in-part of all of the aforesaid applications, and any and all patents that may be granted pursuant to any of them for the full period thereof, including any re-issues, re-examinations, renewals, extensions and Supplementary Protection Certificates, and including all rights and powers arising or accrued therefrom including the right to sue for damages and other remedies in respect of any infringement of any such rights before on or after the date hereof and to retain any damages obtained as a result of such action;

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to the intent that the Assignee shall have and hold the rights title and interest hereby assigned as fully and entirely as the same would have been held and enjoyed by the Inventor or by the Employer had this assignment not been made.

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S.N.

13/12/2011

X

14/12/11

States or any other patent applications which relate to the Invention or to any invention(s) that shall be disclosed in any of the Patent Applications and any and all divisionals, continuations and continuations-in-part of any such applications) as may be reasonably necessary or desirable to secure or to provide further evidence of the vesting in the Assignee or its successors or assigns of all legal and beneficial rights title and interest intended to be assigned to the Assignee hereunder and to confirm the title of the Assignee or its successors or assigns to all such rights title and interest and to assist (in the course of litigation or interference or any other proceedings or otherwise) in the resolution of any question concerning the Invention or invention(s) that shall be disclosed in the Patent Applications or any application for patent or other intellectual property protection for any of the said inventions or any intellectual property protection granted pursuant to any such application.

4 The Inventor and the Employer HEREBY REQUEST the US Commissioner of Patents and the relevant authorities in all countries of the world to issue any patents granted for the Invention or the invention(s) that shall be disclosed in the Patent Applications in the name of the Assignee or its successors or assigns in accordance with this Assignment.

5 This assignment and undertaking shall be binding upon the heirs, executors, administrators, successors and/or assigns of the Inventor and of the Employer and shall enure to the benefit of any heirs, executors, administrators, successors and/or assigns of the Assignee.

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AS WITNESS the signatures of the Inventor and of duly authorised officers of the Employer and the Assignee

THIS ASSIGNMENT MAY BE EXECUTED IN COUNTERPARTS

S.V.

13/12/2011

A


14/12/11

SCHEDULE

Identification of some, but not necessarily all, patent applications falling within the scope of clause 1 of this Assignment

[illegible]

SIGNED by)
the INVENTOR)
at: Abu Dhabi)
on: 13/12/2011)
in the presence of:)

Signature: 

Witness

Signature: *N. J. J. J. J.*

Name:

Address:

N. AZARMI
Nader Azarmi
KUSTAR, Abu Dhabi, UAE.

S.V.
13/12/2011

14/12/11

PATENT
REEL: 027648 FRAME: 0608

SIGNED for and on behalf of)

the 1st EMPLOYER)

at: Abu Dhabi)

on: 15/12/11)

in the presence of:)

Witness

Signature: N. AZARMI

Name: Nade Azarmi

Address: KUSTAR, Abu Dhabi, UAE.

Signature: 

Name: Dr. Mohammed Al-Mulla

Position: Interim Provost

SIGNED for and on behalf of)

the 2nd EMPLOYER)

at:)

on:)

in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)

the 1st CO-APPLICANT)

at: Abu Dhabi)

on: 15/12/11)

in the presence of:)

Witness

Signature: N. AZARMI

Name: Nader Azarmi

Address: KUSTAR, Abu Dhabi, UAE.

Signature: 

Name: Dr. Mohammed Al-Mulla

Position: Interim Provost

S.V.

13/12/2011

14/12/11

PATENT

REEL: 027648 FRAME: 0609

SIGNED for and on behalf of)

the 2nd CO-APPLICANT)

at:)

on:)

in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

SIGNED for and on behalf of)

the 3rd CO-APPLICANT)

at: Abu Dhabi)

on: 14/12/2011)

in the presence of:)

Witness

Signature: N. Azarmi

Name:

Address:

Signature: [Signature]

Name: Abdelaziz AlHutawa

Position: GSVP/TECHNOLOGY INNOVATIONS

Nader Azarmi

KUSTAR, Abu Dhabi, UAE.

S.N.

13/12/2011

[Signature]

14/12/11

PATENT

REEL: 027648 FRAME: 0610

ANNEX – ABSTRACT OF THE INVENTION

This invention relates to assignment of mobile clients (such as mobile telephones or software agents) to mainly stationary servers (such as mobile network base stations or computer servers) with the objective of reducing or minimizing the number of active servers. Once the number of users of a server drops below a specified level, the server may be deactivated resulting in power and efficiency savings. Preferably the method of the invention operates dynamically and during run time. In certain embodiments, the method can accept trade-offs in the quality of service or the number of active servers. In an embodiment of the invention, servers are arranged to “compete” with adjacent servers for their clients. This competition may be in a self-amplifying manner such that with the effect that more “popular” servers are more likely to succeed thus resulting in servers which are below a utilization threshold and can therefore be switched off.

S.N.

13/12/2011

14/12/11

**ASSIGNMENT OF INVENTION
AND ASSOCIATED INTELLECTUAL PROPERTY RIGHTS**

Parties:

1 'The Inventor'

Sebastien Matthieu Ren'e Nicolas

Etisalat BT Innovation Centre, Khalifa University, Abu Dhabi, United Arab Emirates

2 'The Employer'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

3 'The Assignee'

*Khalifa University of Science, Technology, and Research
P.O. Box 127788, Abu Dhabi, United Arab Emirates*

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81 Newgate Street, London, EC1A 7AJ, United Kingdom*

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In consideration for the payment of One U.S. Dollar by the Assignee to each of the Inventor and the Employer, the receipt and sufficiency of which are hereby acknowledged by the Inventor and by the Employer:-

1 The Inventor and the Employer HEREBY SELL ASSIGN AND TRANSFER to the Assignee absolutely and free from encumbrances, by way of current assignment of both existing and future rights and property:

1.1 all such legal and beneficial rights title and interest as they each may own or be entitled to in Canada and the United States and all other countries of the world in to under and arising from the Invention and the Patent Applications and all matter that shall be contained in the Patent Applications, and all national and regional phases and any and all divisions, continuations and continuations-in-part of all of the aforesaid applications, and any and all patents that may be granted pursuant to any of them for the full period thereof, including any re-issues, re-examinations, renewals, extensions and Supplementary Protection Certificates, and including all rights and powers arising or accrued therefrom including the right to sue for damages and other remedies in respect of any infringement of any such rights before on or after the date hereof and to retain any damages obtained as a result of such action;

1.2 all such rights as they each may have to apply for prosecute and obtain patents and other intellectual property protection anywhere in the world in respect of the Invention and the invention(s) that shall be disclosed in and all matter that shall be contained in the Patent Applications to the intent that any patents or other intellectual property protection for the Invention and for such invention(s) and matter may be applied for and shall be granted in the name of and shall vest in the Assignee or its successors or assigns;

1.3 all such rights as they each may have to claim priority from any and all of the Patent Applications in any and all applications for patent protection for the Invention and the invention(s) that shall be disclosed in the Patent Applications, such right to be enjoyed by the Assignee as from the date of filing of each patent application from which priority is claimed;

to the intent that the Assignee shall have and hold the rights title and interest hereby assigned as fully and entirely as the same would have been held and enjoyed by the Inventor or by the Employer had this assignment not been made.

2 The Inventor and the Employer and the Assignee HEREBY GRANT the firm of Mewburn Ellis LLP the power to insert in the Schedule to this Assignment any further identification of any future patent applications in Canada or the United States or any other countries or regions of the world which shall fall within the scope of clause 1 above, as may be necessary or desirable in order to comply with the rules of the United States Patent Office or the Canadian Patent Office or any other patent office for recordation of this document. It is understood and agreed that the Assignee's attorneys Mewburn Ellis LLP have represented only the Assignee and will continue to represent only the Assignee and its successors and assigns with respect to this Assignment.

3 The Inventor and the Employer each HEREBY UNDERTAKE that at the request and cost of the Assignee or its successors or assigns they will at all times hereafter promptly do all such acts and execute all such documents (including but not limited to documents required to be signed by or on behalf of inventors or assignors in the course of any and all Canadian or United

States or any other patent applications which relate to the Invention or to any invention(s) that shall be disclosed in any of the Patent Applications and any and all divisionals, continuations and continuations-in-part of any such applications) as may be reasonably necessary or desirable to secure or to provide further evidence of the vesting in the Assignee or its successors or assigns of all legal and beneficial rights title and interest intended to be assigned to the Assignee hereunder and to confirm the title of the Assignee or its successors or assigns to all such rights title and interest and to assist (in the course of litigation or interference or any other proceedings or otherwise) in the resolution of any question concerning the Invention or invention(s) that shall be disclosed in the Patent Applications or any application for patent or other intellectual property protection for any of the said inventions or any intellectual property protection granted pursuant to any such application.

4 The Inventor and the Employer HEREBY REQUEST the US Commissioner of Patents and the relevant authorities in all countries of the world to issue any patents granted for the Invention or the invention(s) that shall be disclosed in the Patent Applications in the name of the Assignee or its successors or assigns in accordance with this Assignment.

5 This assignment and undertaking shall be binding upon the heirs, executors, administrators, successors and/or assigns of the Inventor and of the Employer and shall enure to the benefit of any heirs, executors, administrators, successors and/or assigns of the Assignee.

6 This agreement shall be governed by and interpreted in accordance with the laws of England, and the courts of England shall have exclusive jurisdiction to settle any disputes which may arise in connection with this agreement.

AS WITNESS the signatures of the Inventor and of duly authorised officers of the Employer and the Assignee

THIS ASSIGNMENT MAY BE EXECUTED IN COUNTERPARTS

SCHEDULE

Identification of some, but not necessarily all, patent applications falling within the scope of clause 1 of this Assignment

[illegible]

SIGNED by)
the INVENTOR)
at:)
on:) Signature:
in the presence of:)

Witness

Signature:

Name:

Address:

SIGNED for and on behalf of)
the 1st EMPLOYER)
at:)
on:)
in the presence of:)

Signature:

Name:

Witness

Position:

Signature:

Name:

Address:

SIGNED for and on behalf of)
the 2nd EMPLOYER)
at:)
on:)
in the presence of:)

Signature:

Name:

Witness

Position:

Signature:

Name:

Address:

SIGNED for and on behalf of)
the 1st CO-APPLICANT)
at:)
on:)
in the presence of:)

Signature:

Name:

Witness

Position:

Signature:

Name:

Address:

SIGNED for and on behalf of)


the 2nd CO-APPLICANT)

at: 81 NEWGATE STREET, LONDON)

on: 14 DECEMBER 2011)

in the presence of:)

Witness

Signature: 

Name: CHI-FAI LAU

Address: 81 NEWGATE ST
LONDON EC1A 7AJ

Signature: 

Name: ROGER NASH

Position: HEAD OF PATENTS

SIGNED for and on behalf of)

the 3rd CO-APPLICANT)

at:)

on:)

in the presence of:)

Witness

Signature:

Name:

Address:

Signature:

Name:

Position:

ANNEX – ABSTRACT OF THE INVENTION

This invention relates to assignment of mobile clients (such as mobile telephones or software agents) to mainly stationary servers (such as mobile network base stations or computer servers) with the objective of reducing or minimizing the number of active servers. Once the number of users of a server drops below a specified level, the server may be deactivated resulting in power and efficiency savings. Preferably the method of the invention operates dynamically and during run time. In certain embodiments, the method can accept trade-offs in the quality of service or the number of active servers. In an embodiment of the invention, servers are arranged to “compete” with adjacent servers for their clients. This competition may be in a self-amplifying manner such that with the effect that more “popular” servers are more likely to succeed thus resulting in servers which are below a utilization threshold and can therefore be switched off.