

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6510742

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	CORRECTIVE ASSIGNMENT TO CORRECT THE NAME AND ADDRESS OF THE RECEIVING PARTY PREVIOUSLY RECORDED AT REEL 050353, FRAME 0255. ASSIGNORS HEREBY CONFIRM THE ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
EDWARD R. HOWORKA	11/06/2001
NEENA JAIN	11/06/2001
STEVEN IACCHEO	11/06/2001
VLADIMIR NEYMAN	03/11/2002
JAMES SHU	12/25/2001
MICHAEL S. MEROLD	11/13/2001
ALASTAIR G. CRANE	11/07/2001
SRIVATHSAN KRISHNASAMI	11/02/2001
ROY S. MCPHERSON	11/01/2001
PAUL M. GINSBERG	11/02/2001
GREGORY D. MILLS	03/06/2002

RECEIVING PARTY DATA

Name:	ELECTRONIC BROKING SERVICES LIMITED
Street Address:	55-56 LINCOLNS INN FIELDS
City:	LONDON
State/Country:	ENGLAND
Postal Code:	WC2A 3LJ

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	09896220

CORRESPONDENCE DATA**Fax Number:**

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: 3122910860**Email:** jpadalino@lsk-iplaw.com**Correspondent Name:** LEMPIA SUMMERFIELD KATZ LLC**Address Line 1:** 20 SOUTH CLARK STREET**PATENT**

Address Line 2: SUITE 600
Address Line 4: CHICAGO, ILLINOIS 60606

ATTORNEY DOCKET NUMBER: 004672-00992Y-US

NAME OF SUBMITTER: JAMES L. KATZ

SIGNATURE: /James L. Katz/

DATE SIGNED: 01/22/2021

Total Attachments: 28

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5714837

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
EDWARD R. HOWORKA	11/06/2001
NEENA JAIN	11/06/2001
STEVEN IACCHEO	11/06/2001
VLADIMIR NEYMAN	03/11/2002
JAMES SHU	12/25/2001
MICHAEL S. MEROLD	11/13/2001
ALASTAIR G. CRANE	11/07/2001
SRIVATHSAN KRISHNASAMI	11/02/2001
ROY S. MCPHERSON	11/01/2001
PAUL M. GINSBERG	11/02/2001
GREGORY D. MILLS	03/06/2002
RECEIVING PARTY DATA	
Name:	NEX GROUP PLC <u>ELECTRONIC BROKING SERVICES LIMITED</u>
Street Address:	2 BROADGATE <u>55-56 LINCOLNS INN FIELDS</u>
City:	LONDON
State/Country:	UNITED KINGDOM <u>ENGLAND</u>
Postal Code:	EC2M 7UR <u>WC2A 3LJ</u>
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	09896220
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Email:	michelle.marsh@cmegroup.com, jpadalino@lsk-iplaw.com
Correspondent Name:	LEMPIA SUMMERFIELD KATZ LLC
Address Line 1:	20 S. CLARK STREET, SUITE 600
Address Line 4:	CHICAGO, ILLINOIS 60603
ATTORNEY DOCKET NUMBER:	004672-00992Y-US

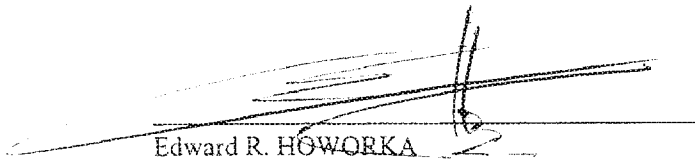
NAME OF SUBMITTER:	JAMES L. KATZ
SIGNATURE:	/JAMES L. KATZ/
DATE SIGNED:	09/12/2019
Total Attachments: 26 source=09-896220 Assignment#page1.tif source=09-896220 Assignment#page2.tif source=09-896220 Assignment#page3.tif source=09-896220 Assignment#page4.tif source=09-896220 Assignment#page5.tif source=09-896220 Assignment#page6.tif source=09-896220 Assignment#page7.tif source=09-896220 Assignment#page8.tif source=09-896220 Assignment#page9.tif source=09-896220 Assignment#page10.tif source=09-896220 Assignment#page11.tif source=09-896220 Assignment#page12.tif source=09-896220 Assignment#page13.tif source=09-896220 Assignment#page14.tif source=09-896220 Assignment#page15.tif source=09-896220 Assignment#page16.tif source=09-896220 Assignment#page17.tif source=09-896220 Assignment#page18.tif source=09-896220 Assignment#page19.tif source=09-896220 Assignment#page20.tif source=09-896220 Assignment#page21.tif source=09-896220 Assignment#page22.tif source=09-896220 Assignment#page23.tif source=09-896220 Assignment#page24.tif source=09-896220 Assignment#page25.tif source=09-896220 Assignment#page26.tif	

WHEREAS, We, Edward R. HOWORKA, Neena JAIN, Steven IACCHEO, Vladimir NEYMAN, James SHU, Michael S. MEROLD, Alastair G. CRANE, Srivathsan KRISHNASAMI, Roy S. McPHERSON, Paul S. GINSBERG and Gregory D MILLS, as assignors, have invented certain improvements in CREDIT LIMIT STORAGE IN AN ANONYMOUS TRADING SYSTEM for which an application for United States Letters Patent was filed in the U.S. Patent and Trademark Office on June 29, 2001 as U.S. Application Serial No. 09/896,220; and

WHEREAS, Electronic Broking Services Limited, an English Limited Company, having its principal place of business at 55-56 Lincolns Inn Fields, London WC2A 3LJ, ENGLAND, as assignee, is desirous of acquiring all right, title and interest in and to said invention and any Patent that may be granted therefor.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, We, as assignors, hereby sell, assign and set over to said assignee the entire right, title and interest for the United States and all other countries in and to said invention and the aforesaid application for Patent, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for ourselves and our legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said invention in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: Nov 6 2001


Edward R. HOWORKA

Date: _____

Neena JAIN

Date: _____

Steven IACCHEO

Date: _____

Vladimir NEYMAN

Date: _____

James SHU

Date: _____

Michael S. MEROLD

Date: _____

Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

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Date: _____

Edward R. HOWORKA

Date: 11/6/01

Neena Jain
Neena JAIN

Date: _____

Steven IACCHEO

Date: _____

Vladimir NEYMAN

Date: _____

James SHU

Date: _____

Michael S. MEROLD

Date: _____

Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

WHEREAS, We, Edward R. HOWORKA, Neena JAIN, Steven IACCHEO, Vladimir NEYMAN, James SHU, Michael S. MEROLD, Alastair G. CRANE, Srivathsan KRISHNASAMI, Roy S. McPHERSON, Paul S. GINSBERG and Gregory D. MILLS, as assignors, have invented certain improvements in CREDIT LIMIT STORAGE IN AN ANONYMOUS TRADING SYSTEM for which an application for United States Letters Patent was filed in the U.S. Patent and Trademark Office on June 29, 2001 as U.S. Application Serial No. 09/896,220; and

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Date: _____

Edward R. HOWORKA

Date: _____

Neena JAIN

Date: 11/6/01

Steve Iacchio

Steven IACCHEO

Date: _____

Vladimir NEYMAN

Date: _____

James SHU

Date: _____

Michael S. MEROLD

Date: _____

Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

WHEREAS, I, Vladimir Neyman, am a co-inventor of certain inventions (the "Inventions") in CREDIT LIMIT STORAGE IN AN ANONYMOUS TRADING SYSTEM which are described in an application for United States Letters Patent which was filed on June 29, 2001 as U.S. Application Serial No. 09/896,220 (the "Application"); and

WHEREAS, Electronic Broking Services Limited, an English Limited Company having its principal place of business at 55-56 Lincoln's Inn Fields, London WC2A 3LJ, ENGLAND, as assignee, is desirous of acquiring all and any right, title and interest that I may have in and to said inventions and any patents that may be granted therefore.

NOW, THEREFOR, in consideration of two thousand five hundred Dollars (\$2,500), the receipt of which is hereby acknowledged, I, Vladimir Neyman, as assignor, hereby sell, assign and set over to said assignee any and all right, title and interest I possess in the inventions for the United States and all other countries, including, but not limited to, my rights in the Application and all other original, divisional, continuation, substitute or reissue applications and patents applied for or granted for one or more of the inventions in the United States and all other countries, including all rights or priority from the filing of said Application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on one or more of said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for patent on one or more of said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which said Application or any other applications or patents for one or more of said inventions may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for one or more of said inventions in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: 3/11/02

Vladimir Neyman
VLADIMIR NEYMAN

STATE OF)
) ss.:
COUNTRY)

This 11th day of March, 2002, before me personally came the above-named Vladimir Neyman, to me personally known as the individual who executed the foregoing instrument, who acknowledged to me that the same was executed by him of his own free will for the purposes therein set forth.

Jason Aybar Notary Public -- Seal

JASON AYBAR
Notary Public, State of New York
No. 01AY6041347
Qualified in Richmond County
Commission Expires 5/08/2002

WHEREAS, We, Edward R. HOWORKA, Neena JAIN, Steven IACCHEO, Vladimir NEYMAN, James SHU, Michael S. MEROLD, Alastair G. CRANE, Srivathsan KRISHNASAMI, Roy S. McPHERSON, Paul S. GINSBERG and Gregory D. MILLS, as assignors, have invented certain improvements in CREDIT LIMIT STORAGE IN AN ANONYMOUS TRADING SYSTEM for which an application for United States Letters Patent was filed in the U.S. Patent and Trademark Office on June 29, 2001 as U.S. Application Serial No. 09/896,220; and

WHEREAS, Electronic Broking Services Limited, an English Limited Company, having its principal place of business at 55-56 Lincolns Inn Fields, London WC2A 3LJ, ENGLAND, as assignee, is desirous of acquiring all right, title and interest in and to said invention and any Patent that may be granted therefor.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, We, as assignors, hereby sell, assign and set over to said assignee the entire right, title and interest for the United States and all other countries in and to said invention and the aforesaid application for Patent, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for ourselves and our legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said invention in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: _____

Edward R. HOWORKA

Date: _____

Neena JAIN

Date: _____

Steven IACCHEO

Date: _____

Vladimir NEYMAN

Date: _____

James SHU

Date: Dec. 28, 2001



Michael S. MEROLD

Date: _____

Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

WHEREAS, We, Edward R. HOWORKA, Neena JAIN, Steven IACCHEO, Vladimir NEYMAN, James SHU, Michael S. MEROLD, Alastair G. CRANE, Srivathsan KRISHNASAMI, Roy S. McPHERSON, Paul S. GINSBERG and Gregory D. MILLS, as assignors, have invented certain improvements in CREDIT LIMIT STORAGE IN AN ANONYMOUS TRADING SYSTEM for which an application for United States Letters Patent was filed in the U.S. Patent and Trademark Office on June 29, 2001 as U.S. Application Serial No. 09/896,220; and

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Date: _____

Edward R. HOWORKA

Date: _____

Neena JAIN

Date: _____

Steven IACCHEO


Date: _____

Vladimir NEYMAN

Date: _____

James SHU

Date: 11/13/2001



Michael S. MEROLD

Date: _____

Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

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Date: _____

Edward R. HOWORKA

Date: _____

Neena JAIN

Date: _____

Steven IACCHEO

Date: _____

Vladimir NEYMAN

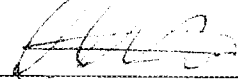
Date: _____

James SHU

Date: _____

Michael S. MEROLD

Date: 7/10/01



Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

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Date: _____

Edward R. HOWORKA

Date: _____

Neena JAIN

Date: _____

Steven IACCHEO

Date: _____

Vladimir NEYMAN

Date: _____

James SHU

Date: _____

Michael S. MEROLD

Date: _____

Alastair G. CRANE

Date: 2 November 2001



Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

WHEREAS, We, Edward R. HOWORKA, Neena JAIN, Steven IACCHEO, Vladimir NEYMAN, James SHU, Michael S. MEROLD, Alastair G. CRANE, Srivathsan KRISHNASAMI, Roy S. McPHERSON, Paul S. GINSBERG and Gregory D. MILLS, as assignors, have invented certain improvements in CREDIT LIMIT STORAGE IN AN ANONYMOUS TRADING SYSTEM for which an application for United States Letters Patent was filed in the U.S. Patent and Trademark Office on June 29, 2001 as U.S. Application Serial No. 09/896,220; and

WHEREAS, Electronic Broking Services Limited, an English Limited Company, having its principal place of business at 55-56 Lincolns Inn Fields, London WC2A 3LJ, ENGLAND, as assignee, is desirous of acquiring all right, title and interest in and to said invention and any Patent that may be granted therefor.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, We, as assignors, hereby sell, assign and set over to said assignee the entire right, title and interest for the United States and all other countries in and to said invention and the aforesaid application for Patent, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for ourselves and our legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said invention in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: _____

Edward R. HOWORKA

Date: _____

Neena JAIN

Date: _____

Steven IACCHEO

Date: _____

Vladimir NEYMAN

Date: _____

James SHU

Date: _____

Michael S. MEROLD


Date: _____

Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: 1 NOV 2001



Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: _____

Gregory D. MILLS

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Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

⊗ Continued on Page 2

Date: _____

Date: 02 November 2001

Date: _____

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Paul M. GINSBERG

Gregory D. MILLS

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Alastair G. CRANE

Date: _____

Srivathsan KRISHNASAMI

Date: _____

Roy S. McPHERSON

Date: _____

Paul M. GINSBERG

Date: 6 MAR 2002

Gregory D. Mills

Gregory D. MILLS

SIC



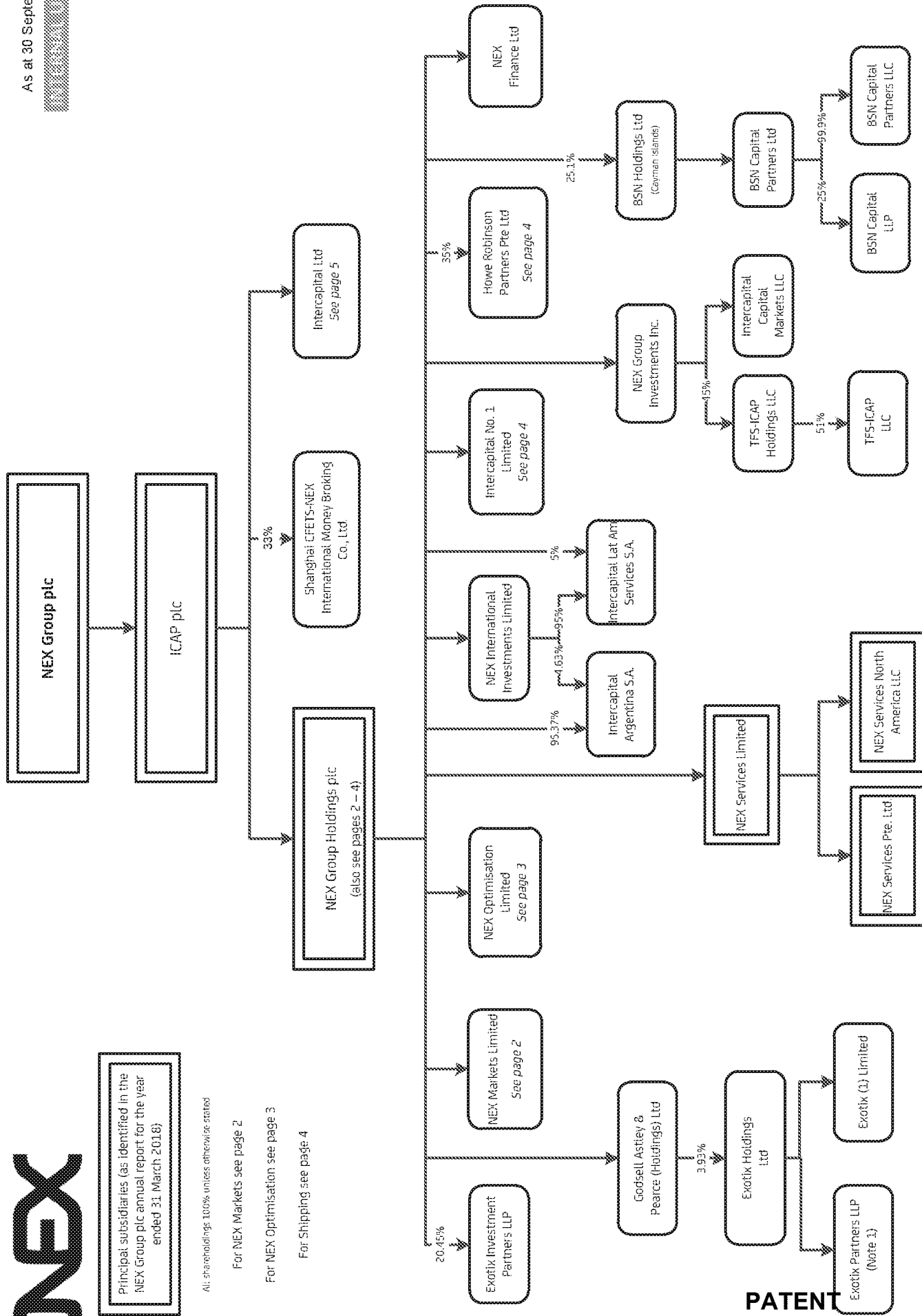
Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated

For NEX Markets see page 2

For NEX Optimisation see page 3

For Shipping see page 4



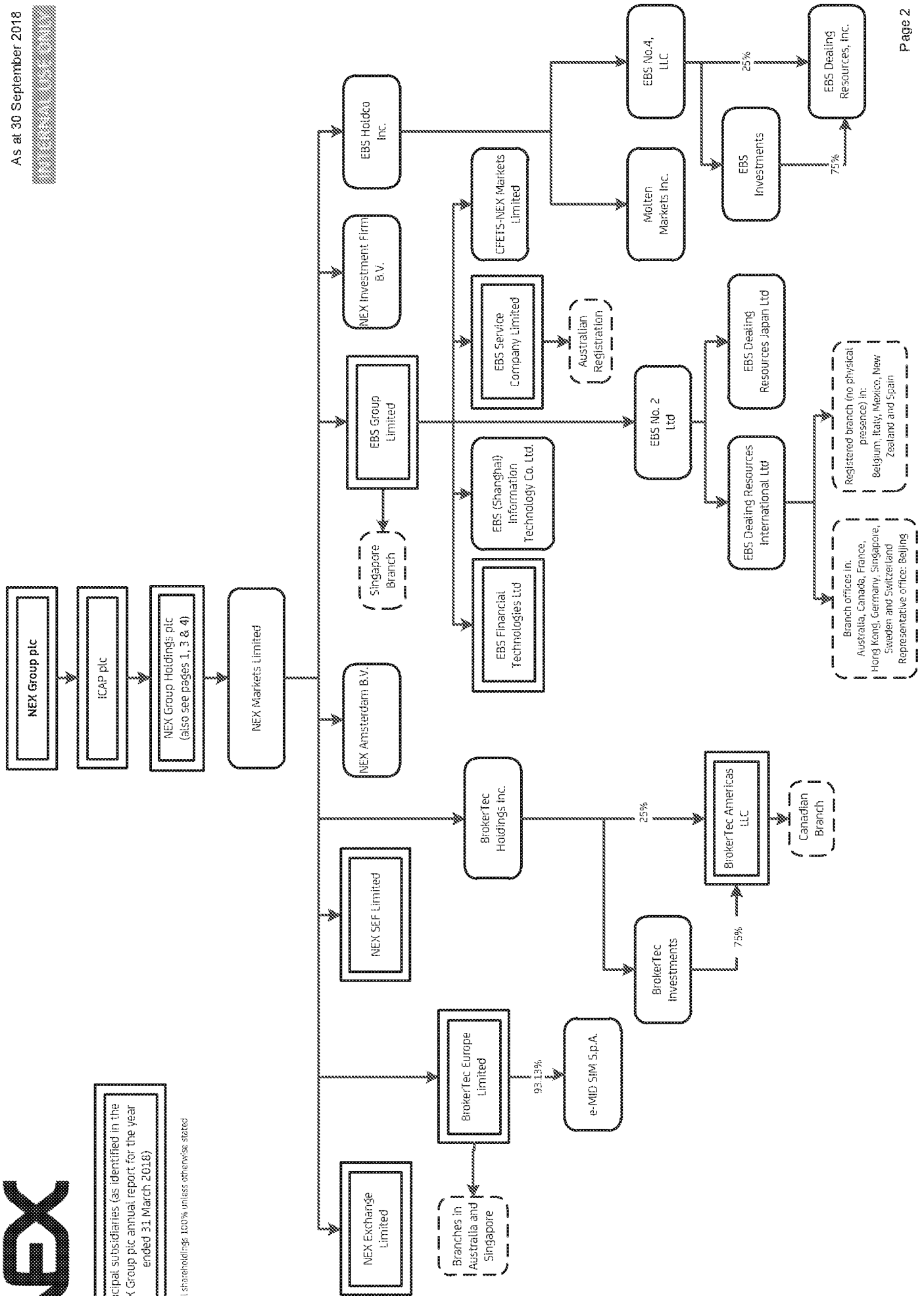
PATENT

Note 1: Exotix Limited holds one capital point in Exotix Partners LLP on trust for Exotix Holdings Limited.



Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

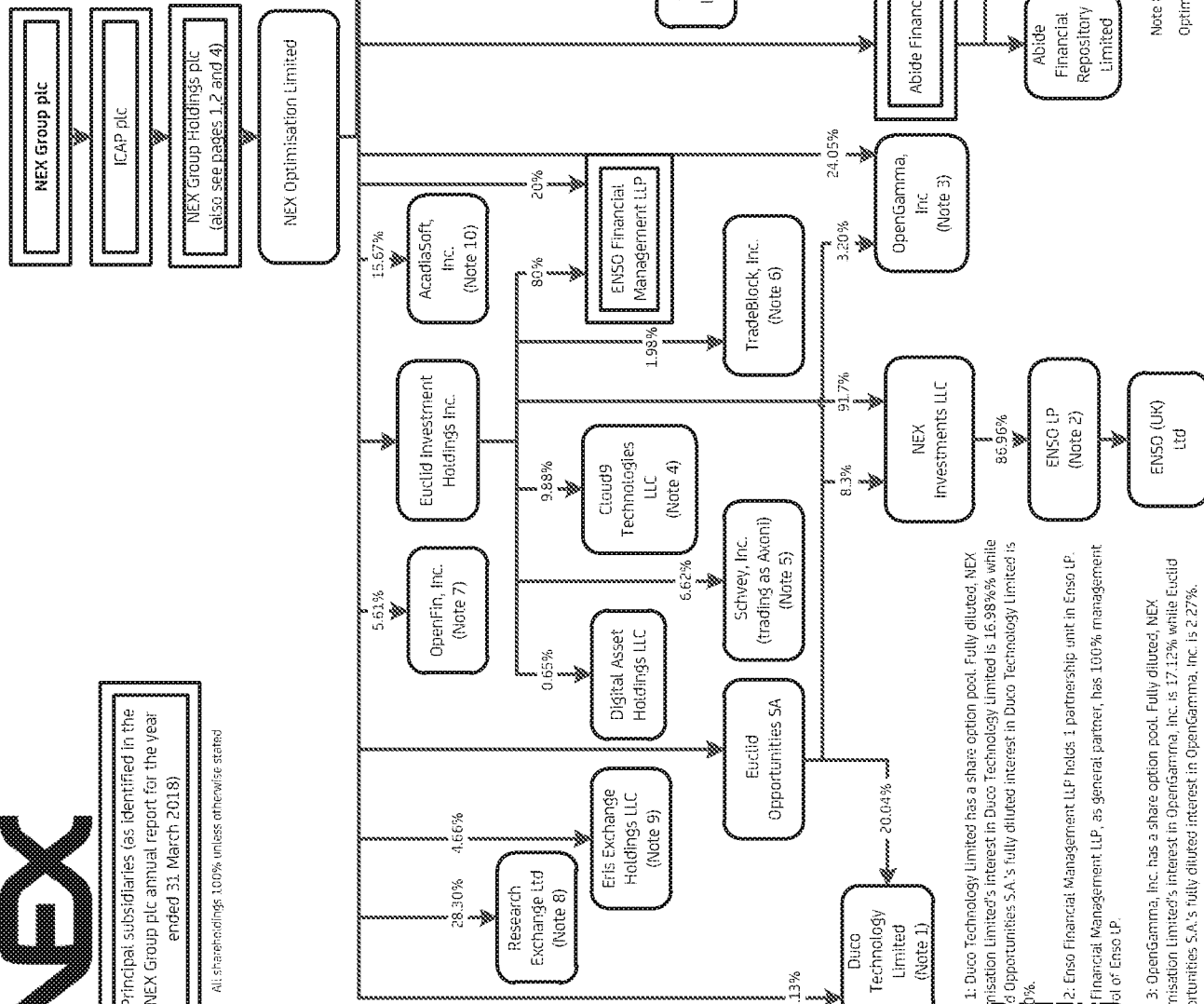
All shareholdings 100% unless otherwise stated





Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31. March 2018)

All shareholdings 100% unless otherwise stated



Note 1: Duco Technology Limited has a share option pool. Fully diluted, NEX Optimisation Limited's interest in Duco Technology Limited is 16.98% while Euclid Opportunities S.A.'s fully diluted interest in Duco Technology Limited is 100%.

Note 2: Enso Financial Management LLP holds a 100% management interest in Enso LP. Enso Financial Management LLP, as general partner, has 100% management control of Enso LP.

Note 3: OpenGamma, Inc. has a share option pool. Fully diluted, NEX Optimisation Limited's interest in OpenGamma, Inc. is 17.12% while Euclid Opportunities S.A.'s fully diluted interest in OpenGamma, Inc. is 2.27%.

Note 4: Euclid Investment Holdings Inc. has a 9.88% voting interest and a 3.88% economic interest in Cloud9 Technologies LLC.

Note 5: Schvey, Inc. has a share option pool. Fully diluted, Euclid Investment Holdings, Inc.'s interest in Schvey, Inc. is 5.96%

Note 6: TradeBlock, Inc. has a share option pool. Fully diluted, Euclid Investment Holdings, Inc.'s interest in TradeBlock, Inc. is 1.70%.

Note 7: OpenFin, Inc. has a share option pool. Fully diluted, NEX Optimisation Limited's interest in OpenFin, Inc. is 4.89%.

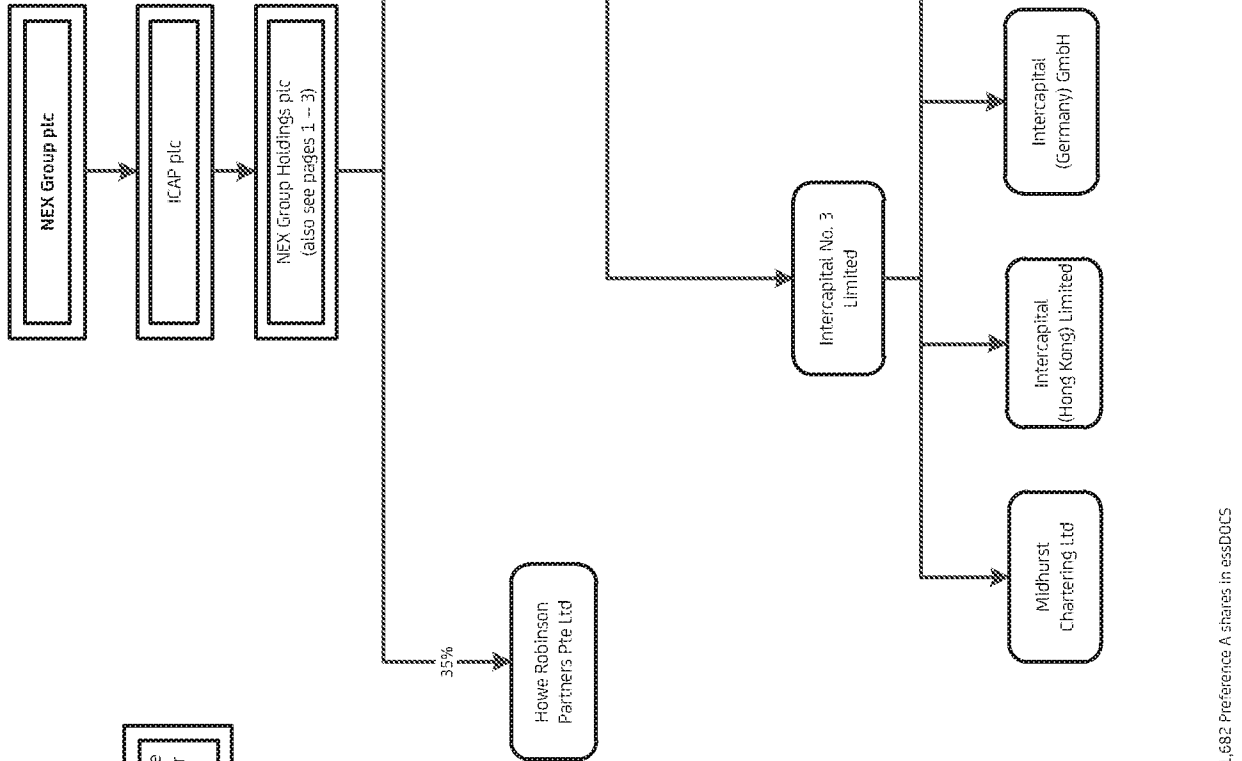
Note 8: Research Exchange Ltd has a share option pool. Fully diluted NEX Optimisation Limited's interest in Research Exchange Ltd is 26.32%.

Note 9: Eris Exchange Holdings, LLC has an equity incentive plan and stock reserved for liquidity providers. Fully diluted, NEX Optimisation Limited has a 4.09% interest in Eris Exchange Holdings, LLC.

Note 10: AcadiaSoft, Inc. has granted non-voting restricted stock awards. Fully diluted, NEX Optimisation Limited's interest in AcadiaSoft, Inc. is 13.85%.

Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated



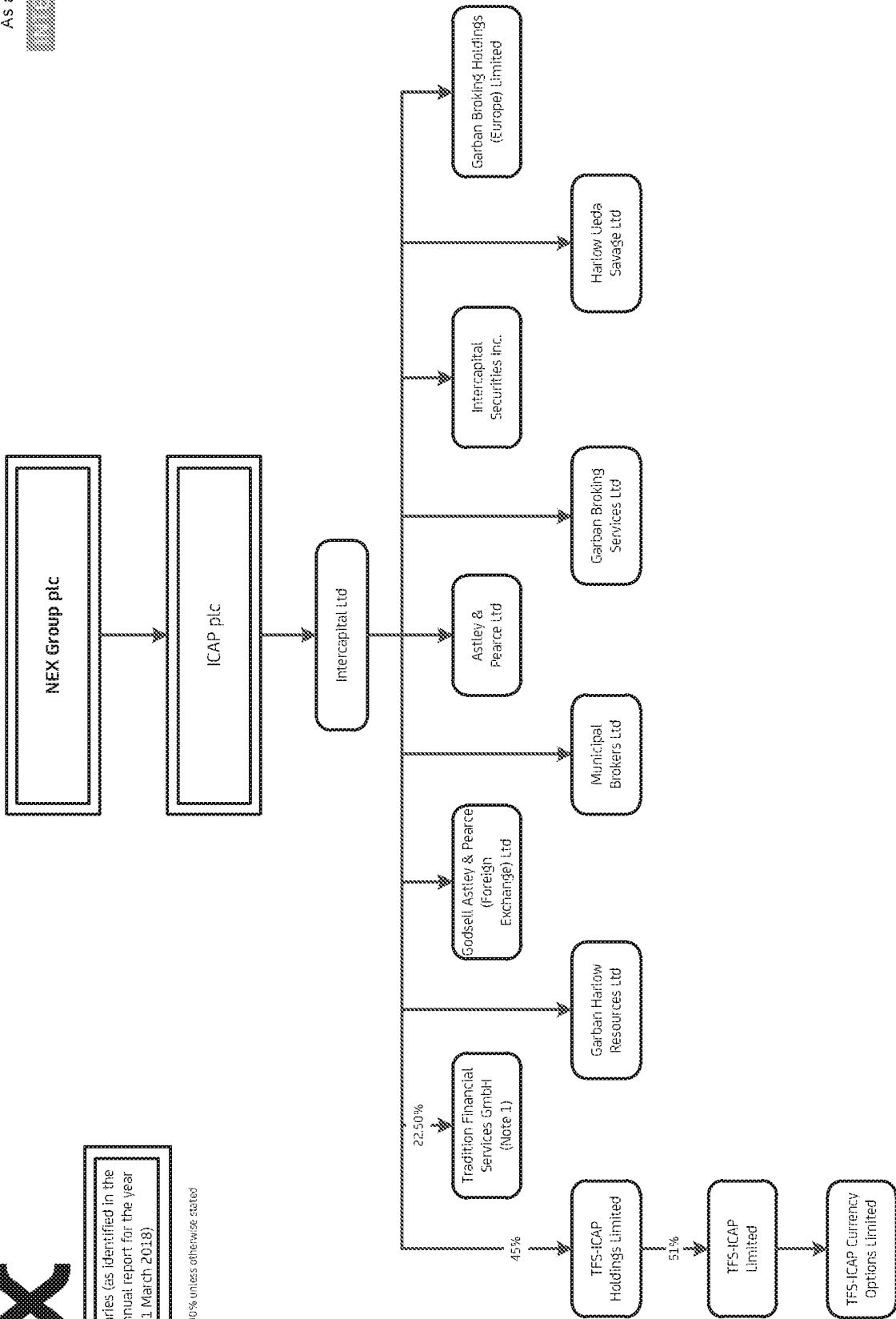
Note 1: Intercapital No. 1 Limited holds 11,682 Preference A shares in essDOCS Limited.

Note 2: Intercapital No. 2 Limited has 50% voting interest and 45% economic interest in Capital Shipbrokers Ltd.



Principal subsidiaries (as identified in the NEX Group plc annual report for the year ended 31 March 2018)

All shareholdings 100% unless otherwise stated



Note 1: Intercapital Limited has 33.33% nominal holding and 22.50% voting and economic interest in Tradition Financial Services GmbH.

PATENT

REEL: 056084 FRAME: 0288

RECORDED: 09/22/2019