

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7651517

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
FENG LIN	09/28/2022
JIYI YIN	10/02/2022
ZIAN WANG	10/31/2022
GUANGMIN HUANG	09/28/2022
JIAQI XIONG	10/02/2022
YUANYUAN HONG	09/28/2022
WEIXIN QIU	10/20/2022
XIAOQIAN HUANG	10/10/2022
RECEIVING PARTY DATA	
Name:	TENCENT TECHNOLOGY (SHENZHEN) COMPANY LTD
Street Address:	35/F, TENCENT BUILDING, KEJIZHONGYI ROAD
Internal Address:	MIDWEST DISTRICT OF HI-TECH PARK, NANSHAN DISTRICT
City:	SHENZHEN, GUANGDONG
State/Country:	CHINA
Postal Code:	518057
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17989230
CORRESPONDENCE DATA	
Fax Number:	(202)293-7860
<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>	
Phone:	202-293-7060
Email:	sughrue@sughrue.com, aclark@sughrue.com
Correspondent Name:	SUGHRUE MION, PLL
Address Line 1:	2000 PENNSYLVANIA AVENUE, N.W.
Address Line 2:	SUITE 9000
Address Line 4:	WASHINGTON, D.C. 20006
ATTORNEY DOCKET NUMBER:	Q280214
NAME OF SUBMITTER:	ALLISON CLARK NEW APPS DEPT

PATENT

SIGNATURE:	/Allison Clark/
DATE SIGNED:	11/17/2022
Total Attachments: 24 source=Q280214ExecutedDeclarationandAssignment#page1.tif source=Q280214ExecutedDeclarationandAssignment#page2.tif source=Q280214ExecutedDeclarationandAssignment#page3.tif source=Q280214ExecutedDeclarationandAssignment#page4.tif source=Q280214ExecutedDeclarationandAssignment#page5.tif source=Q280214ExecutedDeclarationandAssignment#page6.tif source=Q280214ExecutedDeclarationandAssignment#page7.tif source=Q280214ExecutedDeclarationandAssignment#page8.tif source=Q280214ExecutedDeclarationandAssignment#page9.tif source=Q280214ExecutedDeclarationandAssignment#page10.tif source=Q280214ExecutedDeclarationandAssignment#page11.tif source=Q280214ExecutedDeclarationandAssignment#page12.tif source=Q280214ExecutedDeclarationandAssignment#page13.tif source=Q280214ExecutedDeclarationandAssignment#page14.tif source=Q280214ExecutedDeclarationandAssignment#page15.tif source=Q280214ExecutedDeclarationandAssignment#page16.tif source=Q280214ExecutedDeclarationandAssignment#page17.tif source=Q280214ExecutedDeclarationandAssignment#page18.tif source=Q280214ExecutedDeclarationandAssignment#page19.tif source=Q280214ExecutedDeclarationandAssignment#page20.tif source=Q280214ExecutedDeclarationandAssignment#page21.tif source=Q280214ExecutedDeclarationandAssignment#page22.tif source=Q280214ExecutedDeclarationandAssignment#page23.tif source=Q280214ExecutedDeclarationandAssignment#page24.tif	

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Feng LIN/

Feng LIN

DATE: 09/28/2022

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Jiyi YIN/

Jiyi YIN

DATE: 10/02/2022

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Zian WANG/

Zian WANG

DATE: 10/31/2022

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Guangmin HUANG/

Guangmin HUANG

DATE: 09/28/2022

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Jiaqi XIONG/

Jiaqi XIONG

DATE: 10/02/2022

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Yuanyuan HONG/

Yuanyuan HONG

DATE: 09/28/2022

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Weixin QIU/

Weixin QIU

DATE: 10/20/2022

COMBINED ASSIGNMENT & DECLARATION**ASSIGNMENT**

WHEREAS, I hereinafter called the "Assignor", have made the invention described in the attached United States patent application entitled DATA TRANSMISSION METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT.

WHEREAS, Tencent Technology (Shenzhen) Company Limited, having a place of business at 35/F, Tencent Building, Kejizhongyi Road, Midwest District of Hi-tech Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R. China, hereinafter called the "Assignee", desires to acquire the entire right, title and interest in and to the invention and the patent application identified above, and all patent applications and or patents which may be filed and/or obtained for said invention in any country of the world, as set forth below;

NOW, THEREFORE, be it known that, for good and valuable consideration the receipt of which by the Assignor from Assignee is hereby acknowledged, the Assignor has sold, assigned and transferred, and by these presents does sell, assign and transfer to the Assignee, the entire right, title and interest for the United States in and to the invention and the patent application identified above, any provisional application to which the patent application claims priority, and any patents that may issue for said invention in the United States; together with the entire right, title and interest in and to said invention and all patent applications and patents issuing therefrom in all countries foreign to the United States, including the full right to claim for any such application all benefits and priority rights under any applicable convention; together with the entire right, title and interest in and to all continuations, divisions, renewals, reissues and extensions of any of the patent applications and patents defined above; together with the right to recover all damages, including, but not limited to, a reasonable royalty, by reason of past, present, or future infringement or any other violation of patent or patent application rights; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for all such patents.

Assignor represents and warrants that, to the best of its knowledge as of the date of this Assignment,

- Assignor has fully disclosed and/or claimed the invention, including all embodiments of the invention, in the application(s) and/or patent(s);

- Assignor has fully disclosed to the ASSIGNEE any refinements, improvements, and/or descriptions of the invention and/or of any embodiments of the invention, to the extent that the invention and/or any embodiments of the invention have been refined, improved, or disclosed beyond that disclosed and/or claimed in the application(s) and/or patent(s); and

- Assignor is not aware of any basis for challenging the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment.

Assignor will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), sold, assigned, and/or transferred by this Assignment, to the extent that such claim(s) are not materially broader than those that are contained or were contained in the patent(s) or application(s) at any time before the date of this Assignment. Assignor also will not challenge, and will not support any challenge to, the validity of any claim(s) of any patent(s), or the patentability of any claim(s) of any application(s), the subject matter of which is disclosed in the patent(s) to be issued for the invention and/or application(s) for the invention.

Assignor authorizes and request any official of the United States Patent and Trademark Office ("USPTO") and of any foreign patent office, to issue to the ASSIGNEE all patents for the invention and for the patent application in the U.S. and in any foreign country, as the assignee of the entire right, title, and interest in and to the same, for the sole use and benefit of the ASSIGNEE, for the full term for which the patent(s) extend, as if the same would have been held by Assignor had this Assignment not been made.

Assignor has the full right to convey the right, title, and interest being assigned by this Assignment, and has not executed and will not execute any agreement that conflicts with this Assignment.

Assignor will: (a) communicate to the ASSIGNEE, its successors and assigns, and its representatives, any facts known to Assignor regarding the invention, the patent

application (including any divisional, continuation, continuation-in-part, substitute, renewal, and reissue), and any other application(s) or any patent(s) to be issued for the invention in the U.S. and in any foreign country; (b) sign all documents, testify in any legal proceeding or patent office proceeding, and make any required oath or declaration, to aid in causing all right, title, and interest to all such patent(s) to be issued to the ASSIGNEE; and (c) generally do everything possible to aid the ASSIGNEE and its successors and assigns in obtaining and enforcing its entire right, title, and interest assigned by this Assignment in the U.S. and in any foreign country.

Assignor authorizes the ASSIGNEE or its representatives to insert on this Assignment any identification, including the application number and filing date, to comply with rules of the USPTO and any foreign patent office for recordation of this Assignment.

IN TESTIMONY WHEREOF, the Assignor has executed this assignment below.

DECLARATION

As the below-named inventor, I hereby declare that:

This Declaration is directed to the above-identified application. I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified patent application. The above-identified patent application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

SIGNATURE: /Xiaoqian HUANG/

Xiaoqian HUANG

DATE: 10/10/2022