

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT7201631

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GUI HUANG	11/19/2021
CANFANG SHANG	11/26/2021
DENGCHENG HE	11/25/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ALIBABA GROUP HOLDING LIMITED
<b>Street Address:</b>	FOURTH FLOOR, ONE CAPITAL PLACE
<b>Internal Address:</b>	PO BOX 847
<b>City:</b>	GRAND CAYMAN
<b>State/Country:</b>	CAYMAN ISLANDS
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17538748
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Phone:</b>	5093249256
<b>Email:</b>	amandas@leehayes.com
<b>Correspondent Name:</b>	LEE & HAYES, PC
<b>Address Line 1:</b>	601 W RIVERSIDE
<b>Address Line 2:</b>	SUITE 1400
<b>Address Line 4:</b>	SPOKANE, WASHINGTON 99201
<b>ATTORNEY DOCKET NUMBER:</b>	AB1-1003US
<b>NAME OF SUBMITTER:</b>	AMANDA SASSER
<b>SIGNATURE:</b>	/Amanda Sasser/
<b>DATE SIGNED:</b>	03/01/2022
<b>Total Attachments: 4</b>	
source=2LO4760#page1.tif	
source=2LO4760#page2.tif	
source=2LO4760#page3.tif	



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Serial Number .....  
Filing Date .....  
Inventorship ..... HUANG et al.  
Assignee ..... Alibaba Group Holding Limited  
Attorney's Docket No. .... AB1-1003US  
Client Docket No. .... PCT21802US  
Title: ..... DATA PROCESSING METHOD, APPARATUS, ELECTRONIC DEVICE, AND  
COMPUTER STORAGE MEDIUM

**PATENT ASSIGNMENT**

**PARTIES TO THE ASSIGNMENT**

Assignor(s):

Gui HUANG  
c/o Alibaba Group Legal Department  
5/F, Building 3, No.969 West Wen Yi Road,  
Yu Hang District, Hangzhou, China. 311121

Canfang SHANG  
c/o Alibaba Group Legal Department  
5/F, Building 3, No.969 West Wen Yi Road,  
Yu Hang District, Hangzhou, China. 311121

Dengcheng HE  
c/o Alibaba Group Legal Department  
5/F, Building 3, No.969 West Wen Yi Road,  
Yu Hang District, Hangzhou, China. 311121

Assignee:

Alibaba Group Holding Limited  
Fourth Floor, One Capital Place  
P.O. Box 847  
Grand Cayman  
Cayman Islands

**AGREEMENT**

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled  
“DATA PROCESSING METHOD, APPARATUS, ELECTRONIC DEVICE, AND COMPUTER  
STORAGE MEDIUM” for which:

☐ a provisional application for United States Letters Patent was filed on \_\_\_\_\_ and  
was given U.S. Serial No. \_\_\_\_\_ and/or

☒ a foreign priority Chinese patent application was filed on 5/30/2019 and was given CN Patent Application Serial No. 201910462532.X and/or

☒ a PCT international application for was filed on 5/21/2020 and was given PCT Serial No. PCT/CN2020/091526 and/or

☒ a non-provisional application for United States Letters Patent was:

☒ filed on 11/30/2021 and was given U.S. Serial No. 17/538,748; or filed concurrently herewith. Assignors hereby authorize and request ASSIGNEE's legal representatives, of Lee & Hayes, P.C., 601 W Riverside Ave, Suite 1400, Spokane, Washington 99201, who are associated with customer number 29150, to insert in the caption above the serial number and filing date of the patent application when known.

WHEREAS, Alibaba Group Holding Limited (hereinafter referred to as ASSIGNEE), a corporation of Cayman Islands having a place of business at Fourth Floor, One Capital Place, P.O. Box 847, Grand Cayman, Cayman Islands, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefore in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE, the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S)

had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore.

Huang Gui

Gui HUANG

11/19/2021

Date (mm/dd/yyyy)

Canfang SHANG

Date (mm/dd/yyyy)

He Dengcheng

Dengcheng HE

11/25/2021

Date (mm/dd/yyyy)

had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore.

\_\_\_\_\_  
Gui HUANG

\_\_\_\_\_  
Date (mm/dd/yyyy)

*CanFang SHANG*

\_\_\_\_\_  
Canfang SHANG

11/26/2021

\_\_\_\_\_  
Date (mm/dd/yyyy)

\_\_\_\_\_  
Dengcheng HE

\_\_\_\_\_  
Date (mm/dd/yyyy)