PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7428715

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LENOVO ENTERPRISE SOLUTIONS (SINGAPORE) PTE LTD	02/23/2021

RECEIVING PARTY DATA

Name:	LENOVO GLOBAL TECHNOLOGIES INTERNATIONAL LTD
Street Address:	979 KING'S ROAD
Internal Address:	23/F, LINCOLN HOUSE
City:	QUARRY BAY
State/Country:	HONG KONG

PROPERTY NUMBERS Total: 23

Property Type	Number
Patent Number:	10866826
Patent Number:	10798844
Patent Number:	10872111
Patent Number:	10866629
Patent Number:	10819795
Patent Number:	10819681
Patent Number:	10853462
Patent Number:	10877533
Patent Number:	10860499
Patent Number:	10812588
Patent Number:	10853267
Patent Number:	10853089
Patent Number:	10862803
Patent Number:	10846223
Patent Number:	10871963
Patent Number:	10819607
Patent Number:	10810212
Patent Number:	10872046
Patent Number:	10855659
Patent Number:	10863645

Property Type	Number
Patent Number:	10872053
Patent Number:	10855518
Patent Number:	10860813

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.

Email: jfriday@lenovo.com
Correspondent Name: JASON A FRIDAY
Address Line 1: 8001 DEVELOPMENT DRIVE
Address Line 2: LEGAL DEPARTMENT, IP
Address Line 4: MORRISVILLE, NORTH CAROLINA 27560

NAME OF SUBMITTER:	JASON A FRIDAY
SIGNATURE:	/JASON A FRIDAY 62650/
DATE SIGNED:	07/13/2022
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 8
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ASSIGNMENT OF PATENT RIGHTS

WHEREAS, Lenovo Enterprise Solutions (Singapore) Pte Ltd. a limited liability company organized under the laws of the Republic of Singapore, with its principal place of business at 151 Lorong Chuan, #02-01 New Tech Park, Singapore, 55674 (ASSIGNOR) is the owner of certain rights, title and interest in and to the patents, patent applications and invention disclosures set forth in *Exhibit A* hereto;

WHEREAS, it is the intention of ASSIGNOR and Lenovo Global Technologies International Ltd, a limited liability company organized under the laws of Hong Kong having its principal place of business at 23/F, Lincoln House, 979 King's Road, Quarry Bay, Hong Kong (hereinafter ASSIGNEE), that ASSIGNEE own all of ASSIGNOR'S right, title and interest in and to the patents, patent applications and invention disclosures; and

WHEREAS, ASSIGNOR and ASSIGNEE entered into a Periodic Intellectual Property Sale and Transfer Agreement effective January 1, 2017 (collectively the "AGREEMENTS") in which ASSIGNOR assigned intellectual property rights to ASSIGNEE and agreed to periodically assign additional intellectual property rights to ASSIGNEE.

NOW, THEREFORE, in consideration of the mutual promises contained in the AGREEMENTS and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, pursuant to this Assignment of Patent Rights, and subject to the AGREEMENTS, ASSIGNOR hereby sells, assigns, transfers, and conveys to ASSIGNEE, its permitted successors and assigns, all of ASSIGNOR'S right, title, and interest in and to the patents, patent applications, and invention disclosures being made for Letters Patent set forth on *Exhibit A*, and (a) all foreign and U.S. counterpart patents and patent applications claiming priority from the patents and the applications Letters Patents listed in *Exhibit A*, and (b) all continuations, continuations-in-part, divisionals, reissues, renewals, reexaminations, substitutions, and extensions thereof (including equivalents to any of the foregoing in non-U.S. jurisdictions) that may be granted or issue from and claim priority to the foregoing (hereinafter collectively referred to as the "Sold Patents"), and including the right to own and prosecute in ASSIGNEE's own name any reexaminations, reissues, interferences, and all claims and causes of action now in existence or arising in the future resulting from past, present, and future infringement of any of the Sold Patents, including, without limitation, the right to sue and recover for past, present, and future infringement of any of the Sold Patents. ASSIGNOR authorizes and requests the Director of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patents to ASSIGNEE, as ASSIGNEE of the entire right, title, and interest therein or otherwise as ASSIGNEE may direct.

IN TESTIMONY WHEREOF, ASSIGNOR and ASSIGNEE have hereunto executed this Assignment effective Jan 1, 2021, by their duly authorized representatives.

Lenovo Enterprise Solutions (Singapore) Pte Ltd.

By: _____

Name: Hugh Wu

Title: Director

Place: Beijing

Lenovo Global Technologies International Ltd.

By: _____

Name: Barry Au

Title: Director

Place: Beijing

EXHIBIT A

Case Reference	Country	Grant	Grant Number	Internal Title
XRPS920180002 -US-NP	United States	12/15/2020	10,866,826	STATE-BASED SYSTEM MANAGEMENT MIGRATION
XTW920170003 -US-NP	United States	10/6/2020	10,798,844	RAIL ASSEMBLY HAVING A PIVOTING JOINT
XAUS92014033 1-US-NP	United States	12/22/2020	10,872,111	USER GENERATED DATA BASED MAP SEARCH
XRPS920180158 -US-NP	United States	12/15/2020	10,866,629	POWER CONTROL FOR COMPUTER SYSTEMS WITH MULTIPLE POWER SUPPLIES
XRPS920180163 -US-NP	United States	10/27/2020	10,819,795	TRANSMITTING PRINCIPAL COMPONENTS OF SENSOR DATA THAT ARE RESPONSIVE TO A CONTINUOUS QUERY
XRPS920180162 -US-NP	United States	10/27/2020	10,819,681	CONTENT FILTERING WITH TEMPORARY PRIVILEGE ESCALATION RESPONSIVE TO A PREDETERMINED ENVIRONMENTAL CONDITION
XRPS920180160 -US-NP	United States	12/1/2020	10,853,462	AUTHORIZING FILE ACCESS WITH USER I/O AND HARDWARE USAGE PATTERNS
XRPS920150187 -US-DIV	United States	12/29/2020	10,877,533	ENERGY EFFICIENT WORKLOAD PLACEMENT MANAGEMENT USING PREDETERMINED SERVER EFFICIENCY DATA
XRPS920150186 -US-NP	United States	12/8/2020	10,860,499	DYNAMIC MEMORY MANAGEMENT IN WORKLOAD ACCELERATION
XRPS920150175 -US-NP	United States	10/20/2020	10,812,588	Storage Performance Based on Data Placement
XRPS920160049 -US-NP	United States	12/1/2020	10,853,267	ADAPTIVE METHOD FOR SELECTING A CACHE LINE REPLACEMENT ALGORITHM IN A DIRECT-MAPPED CACHE
XRPS920160017 -US-NP	United States	12/1/2020	10,853,089	DYNAMICALLY LOADING FIRMWARE BASED ON GEOGRAPHIC LOCATION
XRPS920150087 -US-NP	United States	12/8/2020	10,862,803	REPURPOSING A TARGET ENDPOINT TO EXECUTE A MANAGEMENT TASK
XRPS920170141 -US-NP	United States	11/24/2020	10,846,223	CACHE COHERENCY BETWEEN A DEVICE AND A PROCESSOR
XRPS920160119 -US-NP	United States	12/22/2020	10,871,963	Adjustment of Voltage Regulator Firmware Settings Based Upon External Factors
XRPS920150167 -US-NP	United States	10/27/2020	10,819,607	REDUCING POWER CONSUMPTION OF A COMPUTE NODE EXPERIENCING A BOTTLENECK
XRPS920160054 -US-NP	United States	10/20/2020	10,810,212	VALIDATING PROVIDED INFORMATION IN A CONVERSATION
XRPS920160110 -US-NP	United States	12/22/2020	10,872,046	REMOTE POWER CYCLING OF COMPUTING DEVICE VIA NETWORK PACKET
XRPS920170128 -US-NP	United States	12/1/2020	10,855,659	COMMANDING A NEW DEVICE INTO A PROVISIONING STATE
XTW920180005 -US-NP	United States	12/8/2020	10,863,645	DUAL SERVER CHASSIS
XRPS920160079 -US-CNT	United States	12/22/2020	10,872,053	PCIE SWITCH FOR AGGREGATING A LARGE NUMBER OF ENDPOINT DEVICES

Case Reference	Country	Grant	Grant Number	Internal Title
XRPS920180167-US-NP	United States	12/1/2020	10,855,518	COMPUTER HAVING AN EMBEDDED SWITCH
XCN920170005-US-NP	United States	12/8/2020	10,860,813	USING A MEMORY CARD TO IDENTIFY THE LOCATION OF A SERVER
XTW920150005-CN-NP	China	11/3/2020	106909205	A device of multi-functional filler which can be angle/dimensional adjustable and stackable at different location in the server products.
XCN920160001-CN-NP	China	12/4/2020	107294876	Apparatus and method for WOL Proxy
XCN920150007-CN-NP	China	10/30/2020	107404544	Method for assigning dynamic IP address by device characteristics
XRPS920160077-CN-NP	China	12/25/2020	107818061	IoD - Method for correlating PCIe lanes to NVMe management buses
XCN920170010-CN-NP	China	10/2/2020	109843017	SERVER RACK DOOR ACCESS

Schedule C: Deed of Transfer

DEED OF TRANSFER

BY AND BETWEEN:

1. **Lenovo Enterprise Solutions (Singapore) Pte. Ltd.**, a limited liability company organized under the laws of the Republic of Singapore, with its principal place of business at 151 Lorong Chuan, #03-01 New Tech Park, Singapore, 556741, hereinafter referred to as "Seller"; and

2. **Lenovo Global Technologies International Ltd**, a limited company organized under the laws of Hong Kong with its principal place of business at 23/F, Lincoln House, 979 King's Road, Quarry Bay, Hong Kong hereinafter referred to as "Purchaser".

HEREBY AGREE AS FOLLOWS:

(a) Pursuant to the periodic intellectual property sale and transfer agreement to be effective as of the 1st day of January, 2017 (the "Agreement"), Seller has agreed to sell, transfer, convey and assign the first day of each Quarter (as defined in the Agreement) to Purchaser, all Future IP vested in such respective previous Quarter and Purchaser has agreed to purchase, assume and accept the same;

(b) The Future IP vested in the Quarter prior to the date hereof (being months October 2020 to December 2020) and sold, transferred, conveyed and assigned pursuant to this deed of transfer are (the "Vested Future IP"):

Technical IP:

Case Reference	Country	Grant	Grant Number	Internal Title
XRPS920180002-US-NP	United States	12/15/2020	10,866,826	STATE-BASED SYSTEM MANAGEMENT MIGRATION
XTW920170003-US-NP	United States	10/6/2020	10,798,844	RAIL ASSEMBLY HAVING A PIVOTING JOINT
XAUS92014033 1-US-NP	United States	12/22/2020	10,872,111	USER GENERATED DATA BASED MAP SEARCH
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XRPS920180163-US-NP	United States	10/27/2020	10,819,795	TRANSMITTING PRINCIPAL COMPONENTS OF SENSOR DATA THAT ARE RESPONSIVE TO A CONTINUOUS QUERY
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XRPS920150187-US-DIV	United States	12/29/2020	10,877,533	ENERGY EFFICIENT WORKLOAD PLACEMENT MANAGEMENT USING PREDETERMINED SERVER EFFICIENCY DATA
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XRPS920160049-US-NP	United States	12/1/2020	10,853,267	ADAPTIVE METHOD FOR SELECTING A CACHE LINE REPLACEMENT ALGORITHM IN A DIRECT-MAPPED CACHE
XRPS920160017-US-NP	United States	12/1/2020	10,853,089	DYNAMICALLY LOADING FIRMWARE BASED ON GEOGRAPHIC LOCATION
XRPS920150087-US-NP	United States	12/8/2020	10,862,803	REPURPOSING A TARGET ENDPOINT TO EXECUTE A MANAGEMENT TASK
XRPS920170141-US-NP	United States	11/24/2020	10,846,223	CACHE COHERENCY BETWEEN A DEVICE AND A PROCESSOR
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XRPS920150167-US-NP	United States	10/27/2020	10,819,607	REDUCING POWER CONSUMPTION OF A COMPUTE NODE EXPERIENCING A BOTTLENECK
XRPS920160054-US-NP	United States	10/20/2020	10,810,212	VALIDATING PROVIDED INFORMATION IN A CONVERSATION
XRPS920160110-US-NP	United States	12/22/2020	10,872,046	REMOTE POWER CYCLING OF COMPUTING DEVICE VIA NETWORK PACKET
XRPS920170128-US-NP	United States	12/1/2020	10,855,659	COMMANDING A NEW DEVICE INTO A PROVISIONING STATE
XTW920180005-US-NP	United States	12/8/2020	10,863,645	DUAL SERVER CHASSIS
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XRPS920180167-US-NP	United States	12/1/2020	10,855,518	COMPUTER HAVING AN EMBEDDED SWITCH
XCN920170005-US-NP	United States	12/8/2020	10,860,813	USING A MEMORY CARD TO IDENTIFY THE LOCATION OF A SERVER

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XCN920160001-CN-NP	China	12/4/2020	107294876	Apparatus and method for WOL Proxy
XCN920150007-CN-NP	China	10/30/2020	107404544	Method for assigning dynamic IP address by device characteristics
XRPS920160077-CN-NP	China	12/25/2020	107818061	IoD - Method for correlating PCIe lanes to NVMe management buses
XCN920170010-CN-NP	China	10/2/2020	109843017	SERVER RACK DOOR ACCESS

(c) By signing this deed of transfer, Seller sells, assigns, conveys and transfers the Vested Future IP to Purchaser, which sale, assignment, conveyance and transfer Purchaser hereby accepts;

(d) In accordance with Article 3.1 of the Agreement, the Purchase Price (as defined in the Agreement) for the sale, transfer, conveyance and assignment of the Vested Future IP is US$ 32,792,494;

(e) Seller hereby authorizes Purchaser to use this deed of transfer for registering the transfer of certain of the Vested Future IP embodied in this deed of transfer in the relevant registers, if any, and Purchaser shall bear the costs associated therewith; and

(f) This deed of transfer shall be appended to the Agreement and shall form part of the Agreement as per the date of signing of the deed of transfer.

Lenovo Enterprise Solutions (Singapore) Pte. Ltd.

By: Hugh Wu
Title: Director
Date: 23 Feb 2021
Place of execution: Beijing

Lenovo Global Technologies International Ltd

By: Barry Au
Title: Director
Date: 23 Feb 2021
Place of execution: Beijing