PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| KRISHNAKUMAR NARASIMHAN | 09/19/2018 |

RECEIVING PARTY DATA

| Name: | DELL PRODUCTS L.P. |
|-----------------|--------------------|
| Street Address: | ONE DELL WAY |
| City: | ROUND ROCK |
| State/Country: | TEXAS |
| Postal Code: | 78682 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16135115 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | 102450.00516(111934.01) | |
|-------------------------|-------------------------|--|
| NAME OF SUBMITTER: | CHRISTOPHER J. ROURK | |
| SIGNATURE: | /Christopher J. Rourk/ | |
| DATE SIGNED: | 09/19/2018 | |

Total Attachments: 2

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PATENT 505100883 REEL: 046907 FRAME: 0174

Attorney Docket No.: 102450.00516(111934.01)

ASSIGNMENT

WHEREAS, KRISHNAKUMAR NARASIMHAN, hereinafter called the "inventor",

haS made the invention described in the United States patent application entitled "FAULT

TOLERANT AND DIAGNOSTIC BOOT," Attorney Docket No. 102450.00516(111934.01), for

a full description of which reference is here made to an application for Letters Patent of the

United States filed herewith; and

I hereby also sell, assign and transfer unto DELL PRODUCTS L.P., hereinafter called the

"Assignee" having a place of business in One Dell Way, Round Rock, Texas, 78682 USA, the

entire right, title and interest in and to the invention and in and to applications for Letters Patent

therefor in all countries foreign to the United States of America, including all rights under any

and all international conventions and treaties in respect of the invention and the applications for

Letters Patent in foreign countries, and I further authorize DELL PRODUCTS L.P. to apply for

Letters Patent in foreign countries directly in its own name, and to claim priority of the filing

date of the application for Letters Patent of the United States of America under the provisions of

any and all international conventions and treaties.

I hereby authorize and request the Commissioner of Patents of the United States of

America to issue Letters Patent upon the aforesaid application, division, extension, continuation,

continuation-in-part, or reissue, to DELL PRODUCTS L.P., for the sole use and benefit of

DELL PRODUCTS L.P., its successors, assigns and legal representatives, to the full end of the

term for which the Letters Patent may be granted, the same as they would have been held and

enjoyed by me had this assignment not been made, and I hereby authorize and request the

equivalent authorities in foreign countries to issue the patents of their respective countries to

DELL PRODUCTS L.P.

I agree that, when requested, I will, without charge to DELL PRODUCTS L.P., but at its

expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable

or convenient for securing and maintaining patents for the inventions in any and all countries and

for vesting title thereto in DELL PRODUCTS L.P., its successors, assigns and legal

representatives or nominees.

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PATENT REEL: 046907 FRAME: 0175 Attorney Docket No.: 102450.00516(111934.01)

Assignment Page 2 of 2

I covenant with DELL PRODUCTS L.P., its successors, assigns and legal representatives, that the interest and property hereby conveyed is free from all prior assignment, grant, mortgage, license or other encumbrance.

| Name of First Inventor | KRISHNAKUMAR NARASIMHAN |
|-----------------------------|-------------------------|
| SIGNATURE OF FIRST INVENTOR | N. Kishi |
| DATE | 9/19/2018 |

PATENT REEL: 046907 FRAME: 0176

RECORDED: 09/19/2018

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