

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3749271

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CHARLES J. CAMP	01/21/2016
TIMOTHY J. FISHER	01/21/2016
AARON D. FRY	01/21/2016
NIKOLAS IOANNOU	01/20/2016
THOMAS PARNELL	02/20/2016
ROMAN A. PLETKA	01/20/2016
SASA TOMIC	01/20/2016
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<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10504
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15047929
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
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<b>Phone:</b>	512-343-6116
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<b>ATTORNEY DOCKET NUMBER:</b>	SJO920150082US1
<b>NAME OF SUBMITTER:</b>	MICHAEL R. LONG
<b>SIGNATURE:</b>	/Michael R. Long/
<b>DATE SIGNED:</b>	02/22/2016

**Total Attachments: 4**

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**DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN  
APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT**

**TITLE: TECHNIQUES FOR DYNAMICALLY ADJUSTING OVER-PROVISIONING SPACE OF A FLASH  
CONTROLLER BASED ON WORKLOAD CHARACTERISTICS**

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

United States application or PCT international application number \_\_\_\_\_ filed  
on \_\_\_\_\_.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the  
application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information  
known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and  
discoveries (herein referred to as the "Invention") disclosed in the above-identified patent  
application and further identified by the IBM Docket Number provided above in the header of this  
document;

Whereas, International Business Machines Corporation, a corporation of New York having a place of  
business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and each  
undersigned inventor desires to grant to IBM, the entire worldwide right, title, and interest in and  
to the Invention and in and to any and all patent applications and patents directed thereto;


Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being  
hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or  
has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors,  
legal representatives, and assigns, the entire worldwide right, title, and interest in and to the  
Invention, the above-identified United States patent application, and any and all other patent  
applications and patents for the Invention which may be applied for or granted therefor in the  
United States and in all foreign countries and jurisdictions, including all divisions, continuations,  
reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof,  
and all rights of priority resulting from the filing of such applications and granting of such patents.  
In addition, each undersigned inventor hereby authorizes and requests the Director of the United  
States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities  
to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives,  
and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed  
by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any  
and all such patents may be granted, as fully and entirely as would have been held and enjoyed by

the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

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.

(1) Legal Name of Inventor: **CHARLES J. CAMP**

Signature:  Date: JAN 21, 2016

(2) Legal Name of Inventor: **TIMOTHY J. FISHER**

Signature:  Date: 1-21-16

(3) Legal Name of Inventor: **AARON D. FRY**

Signature:  Date: 1-21-16

(4) Legal Name of Inventor: **NIKOLAS IOANNOU**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

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.

(1) Legal Name of Inventor: CHARLES J. CAMP

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

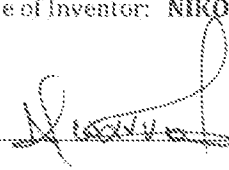
(2) Legal Name of Inventor: TIMOTHY J. FISHER

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(3) Legal Name of Inventor: AARON D. FRY

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(4) Legal Name of Inventor: NIKOLAS IOANNOU

Signature:  \_\_\_\_\_ Date: 1/20/2016

(5) Legal Name of Inventor: THOMAS PARNELL

Signature: Tom Parnell Date: 01/20/2016

(6) Legal Name of Inventor: ROMAN A. PLETKA

Signature: Roman A. Pletka Date: 01/20/2016

(7) Legal Name of Inventor: SASA TOMIC

Signature: Sasa Tomic Date: 1/20/2016