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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
John A. Bocharov	10/28/2009
Geqiang(Sam) Zhang	10/30/2009
Lin Liu	10/30/2009
Anirban Roy	10/30/2009
Jack E. Freelander	10/30/2009
Vishal Sood	10/30/2009
Krishna Prakash Duggaraju	10/30/2009

RECEIVING PARTY DATA

Name:	Microsoft Corporation
Street Address:	One Microsoft Way
City:	Redmond
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12612685

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Address Line 2: Patent Group Docketing Dept Address Line 4: Redmond, WASHINGTON 98052

ATTORNEY DOCKET NUMBER: 327928.02

PATENT

REEL: 023473 FRAME: 0448

NAME OF SUBMITTER:	Medha Kajla	
Total Attachments: 9		
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PATENT REEL: 023473 FRAME: 0449

Liu, Anirban	John A. Bocharov, Geqiang (Sam) Zhang, Krishna Prakash Duggaraju, Lin Roy, Jack E. Freelander, and Vishal Sood ("ASSIGNOR"), have invented er ("INVENTION") disclosed and/or claimed in a patent application entitled G CONTINUOUS AND SPARSE STREAMING DATA" ("APPLICATION"), which:
	will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representatives, of the Law and Corporate Affairs Department, Microsoft Corporation, One Microsoft Way, Redmond, Washington 98052, who are associated with customer number 69316, to insert here in parenthesis (Application No, filed) this APPLICATION's Application No. and filing date, when known;
X	was filed on 11/05/2009 and was given Application No. 12/612,685;
	is filed concurrently herewith;

Microsoft Corporation, a Washington Corporation, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Page 1 of 3

PATENT REEL: 023473 FRAME: 0450

Date Inventor's Signature John <u>A. Bocharov</u> Printed Name in Native Language (if Printed Name in English other than English) Date Inventor's Signature Gegiang (Sam) Zhang Printed Name in Native Language (if Printed Name in English other than English) Date Inventor's Signature Krishna Prakash Duggaraju Printed Name in Native Language (if Printed Name in English other <u>than English</u>) Date ventor's Signature Lin Liu Printed Name in Native Language (if Printed Name in English

other than English)

MS Docket No.: 327928.02

	 :
Amilan loy	10/30/2009
Inventor's Signature	Date
Anirban Roy	कार्निकील अध
Printed Name in English	Printed Name in Native Language (if other than English)
(nventor's Signature	10 /30 / 2009 Date
Jack E. Freelander	
Printed Name in English	Printed Name in Native Language (if other than English)
	\0/30/2009 Date
Inventor's Signature Vishal Sood	विशाल सूर
Printed Name in English	Printed Name in Native Language (if other than English)

MS Docket No.: 327928.02

I/WE, Jo	ohn A. Bocharov, Gegiang (Sam) Zhang, Krishna Prakash Duggaraju, Lin
aubiect matter	Roy, Jack E. Freelander, and Vishal Sood ("ASSIGNOR"), have invented ("INVENTION") disclosed and/or claimed in a patent application entitled CONTINUOUS AND SPARSE STREAMING DATA" ("APPLICATION"), which:
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Page 1 of 3

PATENT REEL: 023473 FRAME: 0453

Inventor's Signature	10/28/09 Date
John A. Bocharov	
Printed Name in English	Printed Name in Native Language (if other than English)
Inventor's Signature	Date
Geqiang (Sam) Zhang	
Printed Name in English	Printed Name in Native Language (if other than English)
Inventor's Signature	Date
Krishna Prakash Duggaraju	
Printed Name in English	Printed Name in Native Language (if other than English)
Inventor's Signature	Date
Lîn Liu	
Printed Name in English	Printed Name in Native Language (if other than English)

Inventor's Signature	Date
Anirban Roy	
Printed Name in English	Printed Name in Native Language (if other than English)
Inventor's Signature	Date
ack E. Freelander	
Printed Name in English	Printed Name in Native Language (if other than English)
nventor's Signature	Date
/ishal Sood	
Printed Name in English	Printed Name in Native Language (if other than English)

I/ WE,	John A. Bocharov, Gegiang (Sam) Zhang, Krishna Prakash Duggaraju, Lin
Liu, Anirbar subject mat	Roy, Jack E. Freelander, and Vishal Sood ("ASSIGNOR"), have invented ter ("INVENTION") disclosed and/or claimed in a patent application entitled NG CONTINUOUS AND SPARSE STREAMING DATA" ("APPLICATION"), which:
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MS Docket No.: 327928,02

Inventor's Signature Date John A. Bocharov Printed Name in Native Language (if Printed Name in English other than English) Date Inventor's Signature Gegiang (Sam) Zhang Printed Name in Native Language (if Printed Name in English other than English) 10/30/2009 Date కృష్ణ పక్ష్ జుగ్రాజు Stepholash Inventor's Signature Krishna Prakash Duggaraju Printed Name in Native Language (if Printed Name in English other than English) Date Inventor's Signature Lin Liu

Page 2 of 3

Printed Name in English

Printed Name in Native Language (if

other than English)

MS Docket No.: 327928.02

Inventor's Signature Date Anirban Roy Printed Name in Native Language (if Printed Name in English other than English) Inventor's Signature Date Jack E. Freelander Printed Name in Native Language (if Printed Name in English other than English) Inventor's Signature Date Vishal Sood Printed Name in English Printed Name in Native Language (if other than English)

MS Docket No.: 327928.02