Disclaimer: This is a machine generated PDF of selected content from our databases. This functionality is provided solely for your convenience and is in no way intended to replace original scanned PDF. Neither Cengage Learning nor its licensors make any representations or warranties with respect to the machine generated PDF. The PDF is automatically generated "AS IS" and "AS AVAILABLE" and are not retained in our systems. CENGAGE LEARNING AND ITS LICENSORS SPECIFICALLY DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES FOR AVAILABILITY, ACCURACY, TIMELINESS, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Your use of the machine generated PDF is subject to all use restrictions contained in The Cengage Learning Subscription and License Agreement and/or the Gale Academic OneFile Terms and Conditions and by using the machine generated PDF functionality you agree to forgo any and all claims against Cengage Learning or its licensors for your use of the machine generated PDF functionality and any output derived therefrom.

## Patent Issued for Flow for Multi-Master Replication in Distributed Storage (USPTO 9864791)

Date: Jan. 22, 2018 From: Journal of Engineering Publisher: NewsRX LLC Document Type: Article Length: 456 words

## Full Text:

2018 JAN 22 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- According to news reporting originating from Alexandria, Virginia, by VerticalNews journalists, a patent by the inventors Grebnov, Ilya (Bellevue, WA); Banina, Samuel (Bellevue, WA); Lamanna, Charles (Bellevue, WA); Lam, Kevin (Woodinville, WA), filed on March 4, 2015, was published online on January 9, 2018.

The assignee for this patent, patent number 9864791, is Microsoft Technology Licensing LLC (Redmond, WA).

Reporters obtained the following quote from the background information supplied by the inventors: "Data storage in a distributed computing environment, such as a cloud computing environment, provides the ability to store data over a network. Since the data is distributed over a network (and stored on one or more network servers), a distributed storage system provides marked benefits over conventional storage, such as scalability, durability, and high availability of data. For example, data may be replicated on multiples servers (at different data centers), ensuring that if a server containing the data becomes inaccessible, the data may still be accessed on a different server."

In addition to obtaining background information on this patent, VerticalNews editors also obtained the inventors' summary information for this patent: "This summary is provided to introduce a selection of concepts in a simplified form that are further described below in the detailed description. This summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used in isolation as an aid in determining the scope of the claimed subject matter.

"Embodiments described herein are directed to replicating data in distributed storage. A replication message from a message queue associated with a source table may be retrieved. The replication message may include a row identifier. One or more target storages within a same replication group as the source table may be identified. A row from each of the one or more target storages may be obtained corresponding to the row identifier. A winning row may be determined from the obtained rows based on a latest client timestamp of the obtained rows. A replication operation may be created based on the winning row and may be performed on the target storages. When the operation has been successfully performed on the target storages, the replication message may be removed from the message queue."

For more information, see this patent: Grebnov, Ilya; Banina, Samuel; Lamanna, Charles; Lam, Kevin. Flow for Multi-Master Replication in Distributed Storage. U.S. Patent Number 9864791, filed March 4, 2015, and published online on January 9, 2018. Patent URL: http://patft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9864791.PN.&OS=PN/9864791RS=PN/9864791

Keywords for this news article include: Business, Microsoft Technology Licensing LLC.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2018, NewsRx LLC

Copyright: COPYRIGHT 2018 NewsRX LLC

http://www.Newsrx.com

Source Citation (MLA 8th Edition)

"Patent Issued for Flow for Multi-Master Replication in Distributed Storage (USPTO 9864791)." *Journal of Engineering*, 22 Jan. 2018, p. 2255. *Gale Academic Onefile*, https://link.gale.com/apps/doc/A524004949/AONE?u=pres1571&sid=AONE&xid=ad5865a1. Accessed 9 Nov. 2019.

Gale Document Number: GALE|A524004949