

Accepted Manuscript

A Computational Model for ranking cloud service providers using hypergraph based techniques

Nivethitha Somu, Kannan Kirthivasan, V.S. Shankar Sriram

PII: S0167-739X(16)30273-4

DOI: <http://dx.doi.org/10.1016/j.future.2016.08.014>

Reference: FUTURE 3136

To appear in: *Future Generation Computer Systems*

Received date: 9 December 2015

Revised date: 22 July 2016

Accepted date: 9 August 2016



Please cite this article as: N. Somu, K. Kirthivasan, V.S.S. Sriram, A Computational Model for ranking cloud service providers using hypergraph based techniques, *Future Generation Computer Systems* (2016), <http://dx.doi.org/10.1016/j.future.2016.08.014>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights of the Work

1. This paper presents a *Hypergraph based Computational Model (HGCM)* and *Minimum Distance– Helly Property (MDHP) algorithm* for ranking Cloud Service Providers (CSPs) based on their adherence with the Cloud Users (CUs) requirement.
2. HGCM uses *Service Measurement Index (SMI)* to evaluate CSPs; It uses *hypergraph based techniques* which brings out the *higher order relations* between the SMI metrics in the initial stage of data representation.
3. HGCM uses *arithmetic residue* and *Expectation Maximization (EM)* algorithm for imputing missing values.
4. MDHP ranking algorithm exploits the relation between SMI metrics to select appropriate CSPs based on CUs requirement.
5. *Complexity of HGCM* has been reduced through *exploiting Hypergraph / Helly property*.

Download English Version:

<https://daneshyari.com/en/article/4950484>

Download Persian Version:

<https://daneshyari.com/article/4950484>

[Daneshyari.com](https://daneshyari.com)