Improved Cloud Computing Model of Internet Pricing Schemes Based on Cobb-Douglas Utility Function

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Content:
In this research, cloud computing model on internet pricing scheme based on Cobb-Douglas utility function was formed. The model formed is a combination of cloud computing model and consumer problem model by using Cobb-Douglas utility functions. These models consider the level of customer satisfaction on the sale of a service product and the service quality of the service provider company. The model used is solved by using LINGO 13.0 program to get the optimal solution result. Based on the calculation, the optimal solution was obtained for two types of cases, for the first case is 217.76 kbps and for the second case is 206.97kbps which is on cloud computing model with usage based pricing scheme and flat fee, respectively. Based on the result of each cases, both Internet Service Provider (ISP) and internet users will get maximum benefit when ISP applied models with utility function compared to the original model.

Keywords:
Cloud Computing, Cobb-Douglas, Consumer Problem, Internet Pricing Scheme
[Kutipan teks disembunyikan]

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Dear Dr. Fitri Maya Puspita,

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Title:
Set Covering Models in Optimizing the Emergency Unit Location of Health Facility in Palembang

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Content:
Palembang comprises 16 districts, but in this research, the focus area is limited to 8 districts namely Sukarami, Sako, Sematang Borang, Kalidoni, Kemuning, Ilir Timur II, Seberang Ulu II, and Plaju. There are currently only 7 districts that have emergency installations. This research is designed to optimize the number and location of emergency installation in Palembang. Optimization of emergency installation location is required to improve health services in Palembang. This optimization uses covering-based models that include Location Set Covering Problem and Maximal Covering Location Problem, The solutions are obtained by using branch and bound solver on Lingo 13.0. The results of the computation with the best time of 15 minutes are 6 locations of emergency installations in order to serve the existing 8 districts.

Keywords:
Covering Based Model, Location Optimization, Emergency unit, Simplex, Lingo 13.0
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