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**Web services selection based on inverse optimization problems.** (Chinese. English summary)

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Summary: Inverse optimization is applied to web service selection, and the solution to the inverse problem can meet the needs of the service provider, increasing the selection rates of its services. In this paper, an inverse optimal selection problem is presented, and a problem-solving procedure is described. Cutting plane algorithm and Huang's method are compared and improvements are presented. The existing web service selection optimization methods have the drawbacks of low efficiency or quality. Therefore, an inverse optimization problem-based web service selection optimization algorithm is presented for the requester to obtain the optimal scheme. Experimental results show that selection rates of the services, quality of the selected scheme and algorithm efficiency are improved.

**MSC:**

**68U35** Computing methodologies for information systems (hypertext navigation, interfaces, decision support, etc.)

**90C10** Integer programming

**Keywords:**

web services; optimal selection; inverse integer programming problem; inverse-selection algorithm

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