Optimal pricing strategies of a Web service intermediary

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Abstract
This paper studies the optimal pricing strategies of an intermediary in a supply chain of complementary Web services. Web services, defined as “loosely coupled, reusable software components that are distributed and programmatically accessible over the Internet,” become a promising technological foundation for enterprise application integration and business to business integration. Prior literature on information intermediary and supply chain of physical goods does not consider distinct research issues faced by a Web service intermediary (WSI), which include the complementarity nature of Web services and the cross network externality effect between Web service providers and consumers. A WSI provides both standalone and network-related value-added services. We seek optimal subscription fee and listing fee charged by a WSI. Analytical results show that in a supply chain of complementary Web services exhibiting cross network effects, the optimal strategy for the WSI is to set the listing fee such that all service providers list in it. On the other hand, the optimal subscription fee to service consumers depends on the intensity of network effect, consumers’ valuation of the WSI’s service, and the characteristics of the Web services under consideration.