

MISQ Archivist

Drawing a Line in the Sand: Commitment Problem in Ending Software Support

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Abstract

We examine the commitment problem faced by a software vendor in ending critical support, in the presence of network security risks. When releasing a new version of a product, in order to drive up its demand, the vendor must cease supporting the old version. However, the vendor's ability to leverage the increased demand can be limited because of a commitment problem. For, when the demand increases and the vendor accordingly sets a higher price, many consumers might opt not to upgrade, creating a situation where stopping security-related support simply becomes too risky. To avoid this risk and any subsequent losses in reputation, the vendor can renege on its earlier decision to stop support. We show that this commitment problem hurts the vendor's profitability and find that the no-commitment equilibrium profit can surprisingly increase with the cost to extend support. Accordingly, we propose a commitment mechanism. Further, the consumer surplus may actually increase if the vendor desists from crossing the proverbial line in the sand and discontinues support as planned.

Keywords: Software support, pricing, security, patching, game theory, commitment problem, analytical modeling, economics of IS