 Providers’ Technical Support and IT Capacity Usage: Evidence from the Cloud

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Research-in-Progress. Please do not quote or cite.

March 2, 2012

Abstract

We conduct a detailed empirical analysis of cloud infrastructure services usage by customers since their initial adoption of the service. In our context, customers can choose between two support levels from the provider: basic support, in which the provider’s assistance is limited to solving basic issues regarding the server’s performance and helping customers use the basic functionalities of the service (e.g., launching or resizing a server), and managed support, in which customers additionally receive direct assistance from the provider in adapting the service to their specific business needs and maintaining their IT infrastructure. We study if customers’ selection of a greater level of assistance – managed support – is associated with greater usage of IT capacity. Specifically, we address the following two research questions:

1. Does the customers’ IT capacity usage increase post upgrade from basic to managed support?

2. Are the effects of managed support durable? Does the customers’ increase in IT capacity usage prevail after they downgrade from managed to basic support?

For this project, we have collected detailed IT capacity usage data of 15,780 customers from a major public cloud infrastructure services provider. Our empirical strategy consists of employing fixed effects panel data models with a difference-in-difference identification strategy to test the effect of upgrades or downgrades between chosen support levels.

Our preliminary results suggest that customers who switch from a basic to a managed level of support, consume, on average, 120% more IT capacity than those who do not switch. Moreover, our results also suggest that the increased usage associated with adopting a higher level of support is durable. Customers who upgraded from basic to managed support, and then downgraded back to basic support, continue using, on average, 52% more IT capacity than those who only used basic support. Finally, we find no statistically significant difference in IT capacity usage between the customers who downgraded from managed to basic support and those who only used managed support.