

Security on distributed systems: Cloud security versus traditional IT

Abstract:

Cloud computing is a popular subject across the IT (information technology) industry, but many risks associated with this relatively new delivery model are not yet fully understood. In this paper, we use a qualitative approach to gain insight into the vectors that contribute to cloud computing risks in the areas of security, business, and compliance. The focus is on the identification of risk vectors affecting cloud computing services and the creation of a framework that can help IT managers in their cloud adoption process and risk mitigation strategy. Economic pressures on businesses are creating a demand for an alternative delivery model that can provide flexible payments, dramatic cuts in capital investment, and reductions in operational cost. Cloud computing is positioned to take advantage of these economic pressures with low-cost IT services and a flexible payment model, but with certain security and privacy risks. The frameworks offered by this paper may assist IT professionals obtain a clearer understanding of the risk tradeoffs associated with cloud computing environments.