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Craig Van Slyke

T. Selwyn Ellis

Kevin Lee Elder

Joseph Mansour

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Craig Van Slyke
Louisiana Tech University
vanslyke@latech.edu

T. Selwyn Ellis
Louisiana Tech University
ellis@latech.edu

Kevin Lee Elder
Louisiana Tech University
kelder@latech.edu

Joseph Mansour
University of Louisiana Monroe
jmansour@ulm.edu

ABSTRACT

Small business face unique challenges related to information security. They often lack internal specialized knowledge, so they turn to service providers. However, there is often a mismatch between the expectations of small business managers and those of the service providers. The research program described in this research-in-progress paper investigated the causes and consequences of this gap.

Keywords

Small business, information security, service providers, expectation-disconfirmation

EXTENDED ABSTRACT

Information security threats represent a significant risk for businesses of all sizes. Small businesses often lack the resources necessary to deal with information security internally. So, they often rely on service providers to secure their digital information assets. In many instances, these providers do not specialize in security; they may provide general information technology (IT) services. Small businesses may also rely on non-IT services firms, such as payment processors, to ensure the security of some information and systems.

There may be discrepancies between what services managers think they are receiving and what is actually being provided. Managers, especially of small businesses, often lack the technical expertise to adequately assess outsourcing contracts and agreements, which may lead to misunderstandings and service gaps. This may lead to an under-appreciation for the complexities of information security. Further, managers may engage in avoidance thinking, believing that their business are unlikely to be targets of attacks.

The information security belief-service gap has several implications. First, the gap may lead to managers having a false sense of security, believing that providers are fully securing systems and information, when such services are not actually part of the service agreement. As a result, there may be attack vectors that are not being adequately considered and protected. Second, small business managers may experience unwarranted dissatisfaction with providers if the managers expect services that were not promised by providers. This could lead to damaged relationships and unnecessary switching costs. Finally, if security violations do occur, managers may not receive the help they anticipated from providers, which can exacerbate an already bad situation. Adverse effects could spread beyond the small business to its customers and suppliers, leading to reputational and economic losses for the small business.

Theories related to similar gaps, such as expectation-disconfirmation theory, may not adequately account for the small business information security belief-service gap. For example, expectation-disconfirmation theory includes perceived performance as an indicator of disconfirmation. But in the case of security, performance may be hidden. Some managers may be unaware of what performance would mean in the case of security. Protecting against a risk is hard to assess without specific technical knowledge of the risk, so even when managers think they can assess security performance, it is unlikely that they can do so to any degree of accuracy. Managers may build their assessments of performance on the lack of an adverse security event. This may lead to a serious overestimate of actual performance, leaving the business at risk.

Taken as a whole, these factors present a complex situation that is not well understood. Because of this, we are engaging in a qualitative study of the small business security belief-service gap. We are interviewing both small business managers and

service providers to assess the existence and causes of gaps. We will build an emergent model of the causes and consequences of the belief service gap. We will complete initial interviews to conduct a preliminary analysis prior to the conference. We will present initial results.