

A confident email system based on a new Correspondence Model

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Abstract— Despite all the current controversies, the success of the email service is still valid. The ease of use of its various features contributed to its widespread adoption. In general, the email system provides for all its users the same set of features controlled by a single monolithic policy. Such solutions are efficient but limited because they grant no place for the concept of usage which denotes a user's intention of communication: private, professional, administrative, official, military.... The ability to efficiently send emails from mobile devices creates new interesting opportunities. We argue that the context (location, time, device, operating system, access network...) of the email sender appears as a new dimension we have to take into account to complete the picture. Context is clearly orthogonal to usage because a same usage may require different features depending of the context.

It is clear that there is no global policy meeting requirements of all possible usages and contexts. To address this problem, we propose to define a correspondence model which for a given usage and context allows to derive a correspondence type encapsulating the exact set of required features. With this model, it becomes possible to define an advanced email system which may cope with multiple policies instead of a single monolithic one. By allowing a user to select the exact policy coping with her needs, we argue that our approach reduces the risk-taking allowing the email system to slide from a trusted one to a confident one.

Keyword—Electronic mail, Correspondence, Security, confidence, Trust.



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