Post-audit of Service Security Investment: Using Simulation Approach

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An important component of Information Security investment management is the post-audit process. Post-audit of capital investments in IT security is the ex-post assessment of projects to determine whether or not the intended purpose was accomplished. Bayesian learning and post-audit has immense value since initial forecasts can be revised with sample information to assess the effectiveness of such investments. The application of the Gamma conjugate family to update technological parameters for an email intrusion prevention/detection system (IDS) in a real option model have been applied in a recent article pertaining to information security investment analysis. Often, conjugate priors are difficult to obtain and an analytically tractable closed form posterior may not be available. A more general approach is to use the MCMC simulation method which allows obtaining the posterior distribution quite efficiently.

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