

APPLICATION OF SERVICE BLUEPRINT AND FMEA IN SECURITY MANAGEMENT

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Abstract

Traditional security management emphasizes using bodyguards because of their strong physique and quick reactions, but this does not thoroughly evaluate and control the entire service process of security management. To overcome the shortcomings of traditional security management, the two purposes of this article are 1) to establish a service blueprint of security management to display the service process through graphic visuals; 2) using the service blueprint of security management as a basis, compute the Risk Priority Number (RPN) based on the Occurrence rating, Severity rating and Detection rating of each potential failure mode through failure mode and effect analysis to evaluate high potential failure modes of RPN and maintain them at a lowest risk.

This article adopted the study of [1] where the category probability of the Rasch model is transformed into a membership function and obtained an objective RPN through Aggregate Fuzzy Score (AFS) and defuzzified AFS of the fuzzy theory. If the score of failure of the RPN is too high, it was specially evaluated and controlled to reduce risk.

Keyword : Keywords: Failure mode and effects analysis (FMEA), Fuzzy, Rasch model, Service blueprint