Dynamic environments characterized by technological, economic, and political change increasingly require organizational alertness among public organizations. The survival and success of an organization occurs when the organization creates and maintains a match between its strategy and the environment and also between its internal capability and its strategy. Kenya Ports Authority (KPA) envisions itself to be World class seaports of choice with a mission of facilitating and promoting global maritime trade through provision of competitive port services. Strategic security plans is the process of choosing the organization's security goals and ways to achieve them in response to the challenges posed by the operating environment. Organizations have to adequately and promptly respond to these challenges in the environment for them to be successful. The objective of this study was to determine the influence of strategic security plans to KPA management. The study was conducted within the Kenya Ports Authority in Mombasa. KPA has 32 departments with 7 division heads. This formed a target population of 39. Purposive sampling was further used to select key respondents for structured interviews. The study used primary data collected using questioners and interview guides on the departmental managers at KPA. The data obtained from the questionnaires and interview guide was analyzed using content analysis. The data was then presented in prose format. The study established that it is impossible to separate the concept of security transformation from the pragmatic day-to-day discipline necessary to achieve it. In order to transform security infrastructure, organization must ensure that each security project clearly maps back to the organization’s strategic business objectives. KPA has successfully restructured its organization, there is need to focus on change management issues, proper organizational communication and adequate strategic security plans. Strategic security plans at KPA enabled the organization to redesign and improve business work processes radically but there is still need for initiatives that emphasize incremental improvement in the whole strategic security planning process and output to cope with changes in the ever changing business environment. In light of the findings, the study recommends that security awareness training be done regularly to enable both the management and employees understand system vulnerabilities and threats to organization operations that are present.