

Abstract

The rapid advancement of technology must be accompanied by an increase in fast and stable data exchange capabilities. Technology capable of performing tasks to store, manage, and process increasingly massive data exchanges is required. Data centers are a technological alternative that fulfills all these needs. Currently, data centers are widely used across various sectors, such as banking, telecommunications, government institutions, private companies, etc. In this research, an analysis of the existing conditions of two data centers will be conducted based on the TIA-942:2005 Standard using the PDCA (Plan, Do, Check, Action) method. The assessment uses an evaluation worksheet developed based on the contents of TIA-942:2005 Annex G, covering four aspects: telecommunications, architectural, electrical, and mechanical. The results show the achievement points across all aspects and each tier (1–4) are 91.49%, 76.56%, 64.40%, and 51.50% for Data Center A and 94.68%, 80.46%, 66.49%, and 53.50% for Data Center B. The assessment results will undergo a gap analysis, followed by the formulation of recommendations for categorization and justification regarding the necessity of fulfilling the recommended categorization.

Keywords— *data center*, TIA-942, PDCA, *tier*