

ABSTRACT

Information Technology is growing so fast. One of that is Data Center. PT XYZ is company placed in Java island and focus on data center services. Many companies sell data center services for data storage service. PT XYZ focus helping micro business and medium business to build network architecture with low cost. In processing data from client, infrastructure is needed for process the data. But until now, infrastructure in PT XYZ, especially in air circulation management still under standart ANSI/TIA-942 such as HVAC system is not implemented yet, cooling air circulation in data center room still not good, perforated raised floor still not efficient. Placing perforated raised floor will optimazing air distribution in each rack can be more efficient. With implementing HVAC air circulation will create a good temperature as ANSI/TIA-92 as big as 20°C - 25°C. This research was arranged with PPDIOO lifecycle approach method for three step they are prepare, plan, design. PPDIOO method was choosed because is suitable for sustained development. Not only PPDIOO lifecycle approach, this research also supported with ANSI/TIA-942 standart. The final result of this researh is give design that can be used as research material by company for developmnet of the data center in the future.

Keyword: data center, airflow, standard TIA-942, PPDIOO Life-Cycle Approach.