ABSTRACT

Bandung *district government is one of the government agencies under the government of West Java province that has the duty to serve all the affairs of community administration in the* Bandung *district. One of agency at the Bandung district government is the agency of informatics communication and statistics, commonly abbreviated* Diskominfo *is an agency that has the duty to provide* IT *services to the public. Currently the agency already has a data center that functions as an informatics service provider to fulfill the needs of community.*

Based on the long term plan of Diskominfo Bandung *district government in the period 2016 – 2021, the data center will undergo some development, one of them is improving the quality of local area communication network in* Bandung *district and the addition of one network rack that have a measurement of* 42U. *Therefore,* Diskominfo *needed a good plan toward the network infrastructure and network rack system, so that later data center services that give from* Diskominfo *be more optimal. The plan refers to the* TIA-942 *standard and uses the* PPDIOO *Life-Cycle Approach method with three stages: prepare, plan, and design. This method is chosen because it fits to the infrastructure development because there is an optimize stage in accordance with the long term sustainable development by* Diskominfo Bandung *district government.*

The result of this research is the plan blueprint of network design infrastructure and network rack system at data center Diskominfo Bandung *district government in accordance with* TIA-942 *standard.*

Keywords: Data center, PPDIOO *Life-Cycle Approach*, TIA-942 *Standard*, *network structure*, *racking system*.