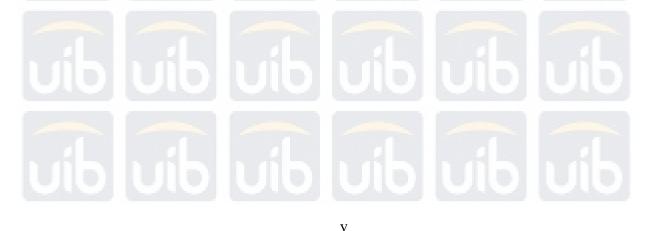# ABSTRACT

ANALYSIS AND DESIGNING THE DYNAMIC VLAN USING PPDIOO DEVELOPMENT LIFE CYCLE METHOD

Rahman Syahputra
1531001

In the development of technology at this time, like computers, software, networks and others have given the effect of high infrastructure needs on its users, resulting in increased competition in terms of developing new technologies by the vendors. With the different conditions and requirements of each user, it raises the thought of a system solution that is well integrated in overall. The use of conventional LAN networks is currently very much avoided by the world for various reasons, for example the management of infrastructure that is difficult and unsystematic, complicated system troubleshooting, the application of single segmentation on the network that raises network security issues is very weak and vulnerable to data theft. Especially if this happens in a large organization or company, of course it will have a very bad impact. The solution is to implement a Virtual Local Area Network (VLAN) to solve problems on the network. This is because VLANs are useful for separating networks into different segments and reducing the size of broadcast domains. With VLAN, it also makes it easy to manage the network, any changes in the network will be easily resolved automatically, namely Dynamic VLAN. To be able to design a good and effective VLAN, an appropriate design method is needed too. This study uses a product method from Cisco, namely PPDIOO Development Life Cycle as the design path for VLANs with type Dynamic VLAN, which aims to get optimal results in the final design according to the process of the method.

Keywords : Computer Networks, Network Security, LAN, VLAN, Dynamic VLAN, PPDIOO Development Life Cycle, Segmentation, Cisco.

Universitas Internasional Batam