

## Abstract

Information systems today increasingly required by various organizations and companies. This resulted in the rapid growth of data, the data allow explosion. If the data explosion occurs in an information system that will have an impact on the data inefficiently. This problem is also likely to occur in IT Telkom Sisfo. Therefore, it needs to be done a preventative measure to avoid the above problems.

One such step is the mining process. Process mining is a technique that allows to extract information from the log event [6]. By being able to obtain information from the event log extraction then we will be able to perform the optimization of existing processes or produce recommendation new models of process.

Discovery is one of the three existing techniques in the mining process. Discovery is defined as a technique that can take on the event log and generate a model without the use of a-priori information [8]. One method that can be used in conducting discovery is the alpha ++ algorithm.

Alpha ++ algorithm is an enhancement of the alpha algorithm [3]. Apha + + algorithm is developed to address the limitations arising from the alpha algorithm. Alpha ++ algorithm development lies in the ability to detect implicit dependencies and lenght-one-loop [3].

Key Word : *data explosion, process mining, log event, discovery, alpha ++ algorithm*