

ABSTRACT

Telkom Regional III West Java (TR3) has a product portfolio based on customer segments, one of which is Digital Business for the wholesale segment with Telkomsel as its main customer. The service offered is IP Radio for Node B Telkomsel transmission. TR3 has an IP Radio assurance process business that manages the processes related to handling IP Radio interference. TR3 sets the target time to resolve of IP Radio interference / mean time to recovery (MTTR), which is 9 hours. However, the realization of the MTTR average in 2018 exceeds the target, which is above 18 hours. This is due to the IP Radio assurance business process that is less efficient and effective in coordinating the fulfillment of IP Radio replacement component.

This study aims to analyze the processes on the IP Radio assurance business process that contribute to the value of MTTR Radio IP and evaluate business process that can meet the MTTR target of IP Radio with simulation design. To achieve this goal, this study uses a theoretical approach to Business Process Reengineering and Business Process Simulation. This research uses *mixed method* (quantitative and qualitative) and Arena simulators to carry out the design simulation of the IP Radio assurance business process.

The results of this study indicate that the dominant processes on the IP Radio assurance business processes are Troubleshooting, Huawei Spare Parts Request, Travel Time directly to Site, Location Permission, Technical Closed, and Analysis. Furthermore, the assurance business process that can meet the MTTR Radio IP targets according to the results of the simulation scenario is the IP Radio assurance business process that eliminates Huawei's spare part request process and simplifies the troubleshooting process, Huawei's spare part request, direct travel time to site, location permission, technical closed, and analysis. Further research can be carried out on the implementation of business processes and analyze the comparison of implementation results with simulation results in terms of the effectiveness of technician resources and costs.

Keyword : Business Process Reengineering, Business Process Simulation, Mean Time To Recovery, Assurance, Radio IP