

## **Abstract**

Growth of telecommunication technology has triggered a few of telecommunication operator to improve quality service product. But, service improvement is related with bandwidth capacity and compatibility. PT. Telkom, Tbk., one of telecommunication operator doing to improvement performance to make a new network fiber optic communication system backbone JASUKA to solve bandwidth demand for internet customer and data communication

JASUKA backbone consist of fiber optic communication system and submarine communication system that connecting of cities on Java, Sumatera and Kalimantan. Transmission system of fiber optic communication backbone JASUKA managed by INFRATEL division of PT. Telkom, Tbk.

From this document will discuss about system performance on first ring JASUKA backbone, consist of flexibility evaluation system ; capability, compatibility, protection system, maintainability and availability.

And from this document we will know, how performance of system quality and give a recommendation to improve system performance.