

## ABSTRACTION

The world of telecommunication keep on changing and developing, not only on the customer amount side but also from the technology side, We'll need a short of technology that can integrating all kind of services with only one media. The purpose is to eliminate the application complexity and to ease the customer to use the device. The future needs like a wider bandwidth to transmit the digital signal like multimedia services (Data, Video, Voice) or kind of service like softswitch, HFC, and CDMA can fulfilled with NGN (Next Generation Network). One way achieving it is by using Fiber Optic media as a broadband infrastructure.

The first step from this RMJ (Regional Metro Junction) Network planning is to define the network environment by deciding the demand, size of the area will be served. To anticipate the future need, which is the use of NGN that can achieve Gigabyte but on this Final project will limited only on Bandwidth that suite with the service provided and bandwidth asked by the customer until the future come.

Cause of the Multimedia service need wider bandwidth and digital signal transmission so We'll need a better level of network performance and better stability. Because of that the planning will done according to standard that already chosen by observation and data collecting on field.

With the existence of planning and realization on Regional Metro Junction (RMJ) Network as transportation network between STO, so all the services we'll need like CDMA (Telkom flexi), HFC (TV Cable), and Softswitch (Narrowband and Broadband) can be integrated and delivered to a lot of region (Metro), for example is one at the Karangampel and Jatibarang.