ABSTRACT

The amount of work that must be done by parents results in a higher need for parents to supervise their children at a distance. Parents need tools to supervise and communicate with their young children, so that children do not feel alone when their parents are working. However, the price of the equipment that can be used for this is quite expensive.

From these problems, the authors propose an affordable video conferencing technology. According to the authors, parents can monitor their children's activities by video conferencing, on the other hand their children can also see their parents. So in this study the authors present an affordable home video conference prototype called HARVIE which is designed to make it easier to monitor children (baby monitoring).

To get the number of users who use this tool, it requires good performance by considering Quality of Service (QoS) and resource utility. The QoS results obtained successfully meet the TIPHON standard with bandwidths ranging from around 1398 kbps-3134 kbps, throughput values of 1659 kbps and 1536 kbps, jitter values of 0.004793 s and 0.003572 s, packet loss values are equal to zero, and the delay obtained is 0.003572 s and 0.003986 s. While the results for the resource utility obtained when the video application is run is 86,767% CPU users, 10.463% system CPUs, and the memory used is 252.13 MB.

Keywords: *Video Conference, HARVIE, Baby Monitoring, Quality of Service.*