

are: simple queue and queue tree [2].

Winbox: Winbox is a utility that is used to perform remote proxy server in GUI mode through the windows operating system. If to configure proxy in text mode through the PC itself, then for the GUI mode using Winbox we configure the client computer through the proxy.

### 3 RESEARCH METHODOLOGY

#### 3.1 Analysis and Network Issues

On the computer network at STIK Bina Husada Palembang using a star topology. In a star topology, each workstation is connected directly to the server through the switch. Between the room connected to a switch to a switch that is connected to the transmission media types crossover UTP cable using RJ-45 connectors. For now the gateway server used in STIK Bina Husada Palembang using Mikrotik RouterOS operating system server that functions as a server using the Internet Sharing NAT. The addresses are used on the LAN at STIK Bina Husada is used class C, the network using 192.168.0.0/24 used default subnet mask of 255.255.255.0, and the IP address 192.168.2.2/32 is used to connect a Mikrotik 1100 modem to the router's Internet [6].

The network infrastructure conditions is used Mikrotik Astinet 1100 with a capacity of 4 Mbps bandwidth, 7 pieces DLINK Switch HUB 8 port, 1 unit of computer proxy server and 3 units of computer servers supporting academic and financial information systems, and 4 pieces of the Access Point. The following physical topology that is currently running on the STIK Bina Husada Palembang [6].

Methods: In this study, the research method used was action research. Action research is divided into several stages that constitute the cycle, are: perform diagnosis, make a plan of action, action taking, evaluation and learning.

Analysis Methods: In this final analysis method used is the method of Quality of Service (QoS), QoS is the ability of a service to ensure performance and is a parameter to measure the quality of a service. Institute for Standardization ITU-T defines QoS as a decisive influence overall performance level of user satisfaction. QoS on the network include delay, throughput, jitter, packet loss using Axence NetTools Professional Software and iperf with Windows 7 Professional operating system.

### 4 RESULTS AND DISCUSSION

#### 4.1 Analysis Bandwidth Utilization Management

In this study, the authors analyze and identify problems Bandwidth Utilization Management Based on RouterOS STIK Bina Husada Palembang by measuring parameters QoS (Quality of Service) such as bandwidth, delay, packet loss and throughput. The data analyzed were analyzing data QoS. QoS is the ability of a service to ensure performance and is a parameter to measure the quality of a service. Institute for Standardization ITU-T defines QoS as the influence that determines the overall performance level of user satisfaction. QoS on the network include bandwidth, delay, packet loss, jitter and throughput.