

## ABSTRACT

PacketCable is a standard mechanism for transmit data over packet. PacketCable is one introduced standard by Cable Television Laboratories, Inc.

The PacketCable can be used to develop interoperable equipment capable of providing packet-based voice, video and other high-speed multimedia services over hybrid fiber coax (HFC) cable systems utilizing the DOCSIS protocol.

PacketCable utilizes a network superstructure that overlays the two-way data-ready broadband cable access network. In this final project will be explained the packetcable network planning, and then we can predict how much user number, bandwidth, traffic, and how many component needed for construct the PacketCable network.

This final project will be explained packetcable network planning with uses Media Gateway Control Protocol (MGCP) as basic protocol which will refer to as the PacketCable Network-based Call Signaling (NCS) protocol profile of an application programming interface (MGCI).

Media Gateway Control Protocol (MGCP) is delivery service for PacketCable especially to PSTN. It is controlling embedded clients from external call control elements and connected two or more line access analog to voice network over PacketCable and one or more line access video to voice over PacketCable. MGCI is ones application programming for control connection, auditing and status reporting for PacketCable over Media Gateway Control Protocol.