



(57) Abrégé(suite)/Abstract(continued):

unit. The gateway MSC includes a protocol handler for voice (PHV). For any given incoming call for the roaming mobile unit or outgoing call from the roaming mobile unit, the gateway MSC designates a specific address (or channel) on the PHV, referred to as a data link connection identifier (DLCI), for use as an address for voice packets to be received from the roaming mobile unit via the base station and serving MSC, and the base station also provides a base station packet address to the gateway MSC, for use as an address for voice packets to be received from the gateway MSC (through the serving MSC) for the roaming mobile unit, thereby creating a full duplex packet link. The packet link serves as a voice path between the base station, the serving MSC, and gateway MSC, with all communication to and from the roaming mobile unit routed through the gateway MSC. The gateway MSC thereby maintains all call control for the roaming mobile unit for the implementation of advanced calling features, such as call waiting and three-way calling. In the preferred embodiment, the DLCI is included as a new parameter for ANSI-41 compatible messages. In addition, new ANSI-41 compatible messages are also utilized, a Gateway Origination Request containing the base station packet address and a Gateway Origination Request Return Result containing the new DLCI parameter.

