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SPECIAL SERVICE CALL ROUTING

Abstract

This invention relates to methods of establishing facsimile (fax) connections. If a call is originated from a fax source and the destination is a voice station, then the call will be automatically redirected to a fax machine designated to receive fax messages for the voice station. A fax call is detected by a class of service indication in a local switching office, or by having a number forwarded to a toll office from a local office by Automatic Number Identification (ANI) of the caller that is one of a list of fax numbers. When it is determined that a call is a fax call, a fax indicator is sent with Common Channel Signaling (CCS) messages for that call. If a call with a fax indicator is received in a destination switching office, then the destination office checks to see if the called number is a fax number; if not, translation is made to find the number of a fax station for serving fax calls to the called number, and the call is completed to that fax station. Advantageously, customers need not know a fax number to transmit a fax message to an intended recipient.

Three types of problems arise in treating such calls: recognition that the call is a fax call, transmitting that recognition to a far end switch, and redirecting the call at the fax end switch. Among the other techniques used for recognition are a fax class mark in an originating message from an Integrated Services Digital Network (ISDN) line or a dialed prefix such as #, #3, or an alternative common carrier code (10XXX) from an ordinary line. The redirection includes automatic redirection to a store and forward system on busy or no answer, routing to one of a plurality of alternative destinations based on the day and time, screening junk fax, and lighting a fax message waiting lamp on the called (voice) destination. For international calls, a translation from voice to fax may be made at an egress gateway switch; the fax calls may also be automatically routed over low distortion international transmission facilities.

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