



[54] FLEXIBLE DIRECT SIGNALING SYSTEM

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[73] Assignee: Lucent Technologies Inc., Murray Hill, N.J.

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[51] Int. Cl.⁶ H04M 3/42; H04M 7/00

[52] U.S. Cl. 379/207; 379/219; 379/229; 379/209

[58] Field of Search 379/201, 207, 379/220, 221, 230, 216, 209, 229, 219; 455/466; 370/352

[56] References Cited

U.S. PATENT DOCUMENTS

| | | | |
|-----------|---------|----------------------|---------|
| 4,897,866 | 1/1990 | Majmudar et al. | 379/201 |
| 5,473,679 | 12/1995 | La Porta et al. | 379/201 |
| 5,563,938 | 10/1996 | Soshea et al. | 379/201 |
| 5,563,939 | 10/1996 | La Porta et al. | 379/201 |
| 5,659,605 | 8/1997 | Voit et al. | 379/220 |

OTHER PUBLICATIONS

Thomas F. La Porta, Malathi Veeraraghavan, Direct Signaling: A New Access Signaling Architecture, 1995 IEEE, pp. 93-98, Feb.

Bell Atlantic, Repeat Call, Mar. 1989.

Bell Atlantic, Customer Satisfaction Guarantee, Dec. 1992.

Bell Atlantic, Identia Ring, Feb. 1993.

Bell Atlantic, Return Call, Feb. 1990.

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Assistant Examiner—Benny Q. Tieu

[57] ABSTRACT

A direct signaling system for providing system subscribers with the freedom to access service providers of their choice, regardless of their access network arrangement, with substantially minimum change to existing telecommunication software and architecture. The system provides a home interface unit and a call server that enables a subscriber to send signaling messages to and receive messages from the service providers of their choice. The home interface unit and call server execute state machines that provide specific details of system operation. The call server state machine triggers a state machine and thus operation of the service specific servers chosen by the subscriber.

27 Claims, 9 Drawing Sheets

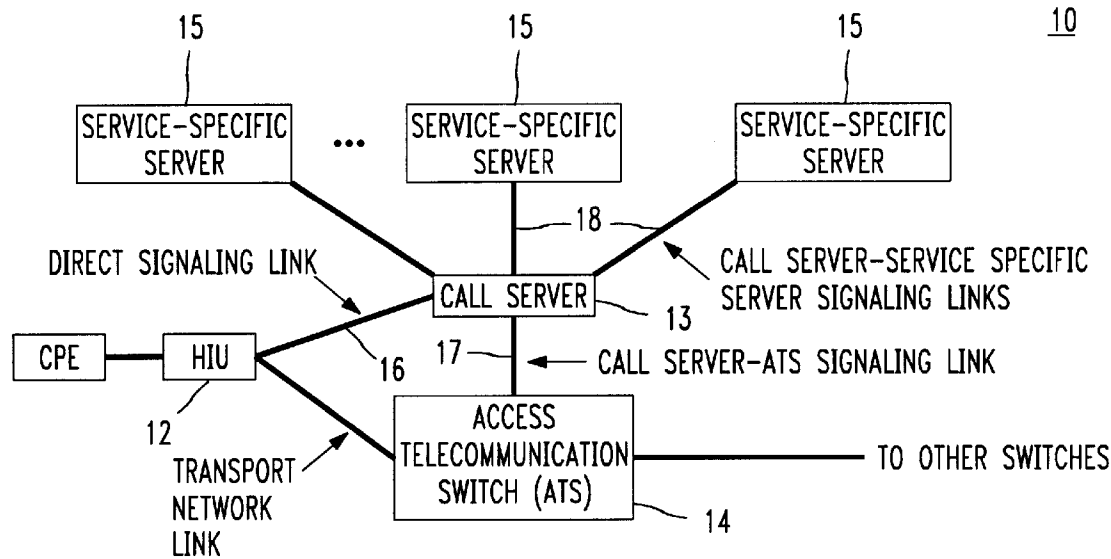


FIG. 1
PRIOR ART

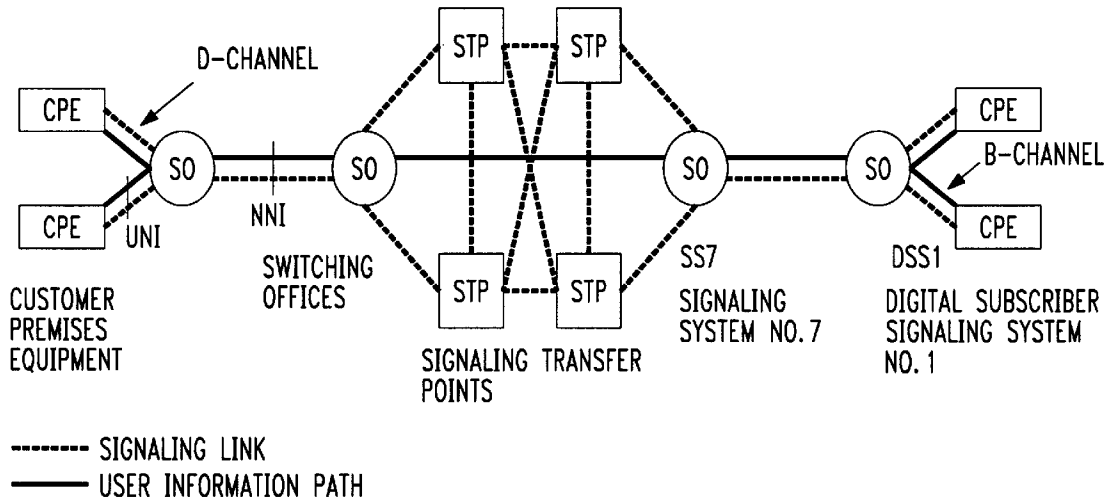


FIG. 2
PRIOR ART

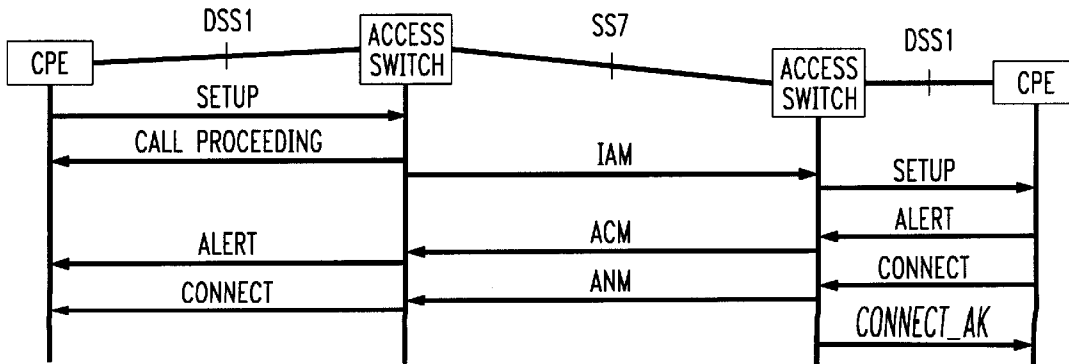


FIG. 3

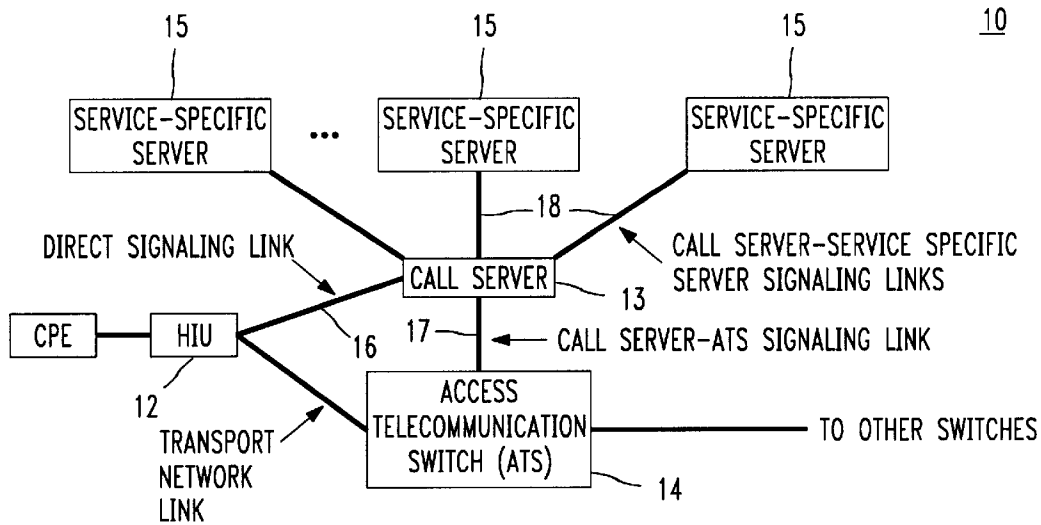


FIG. 4

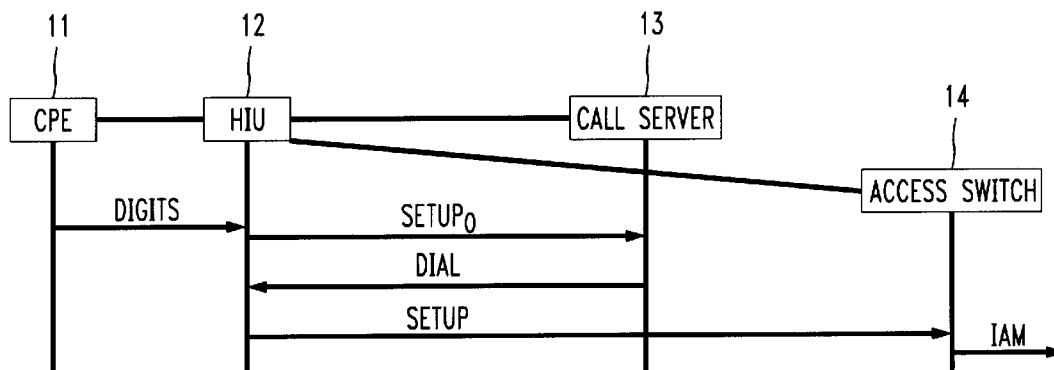


FIG. 5

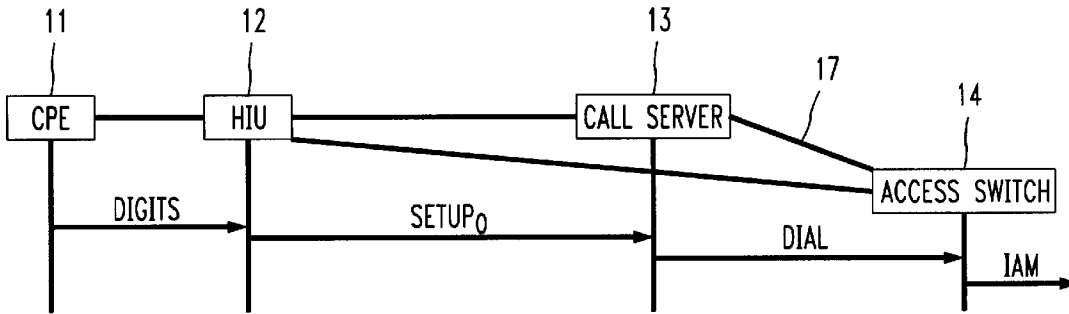


FIG. 6

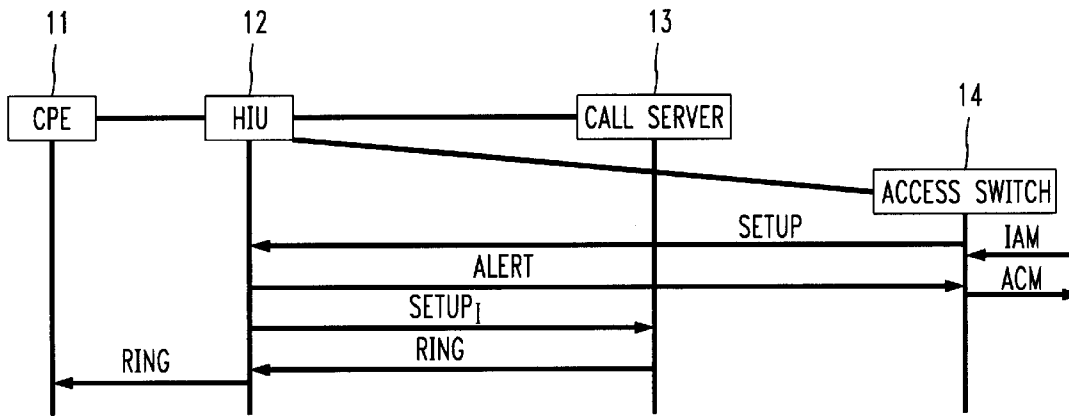


FIG. 7

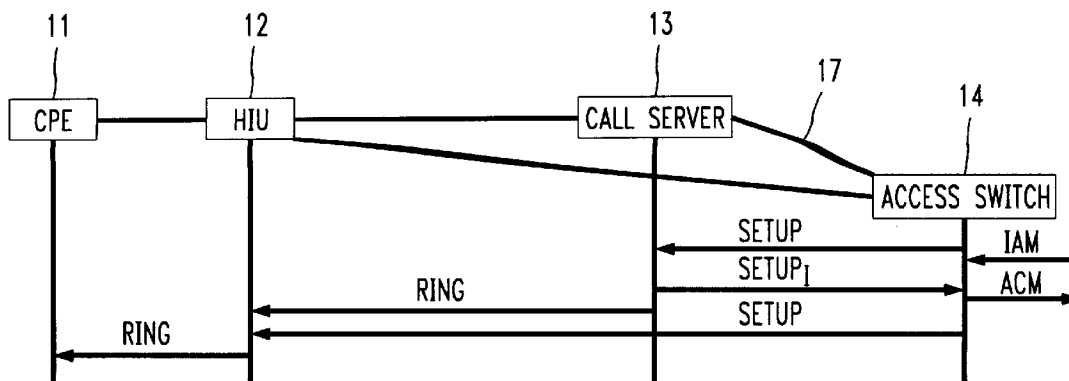
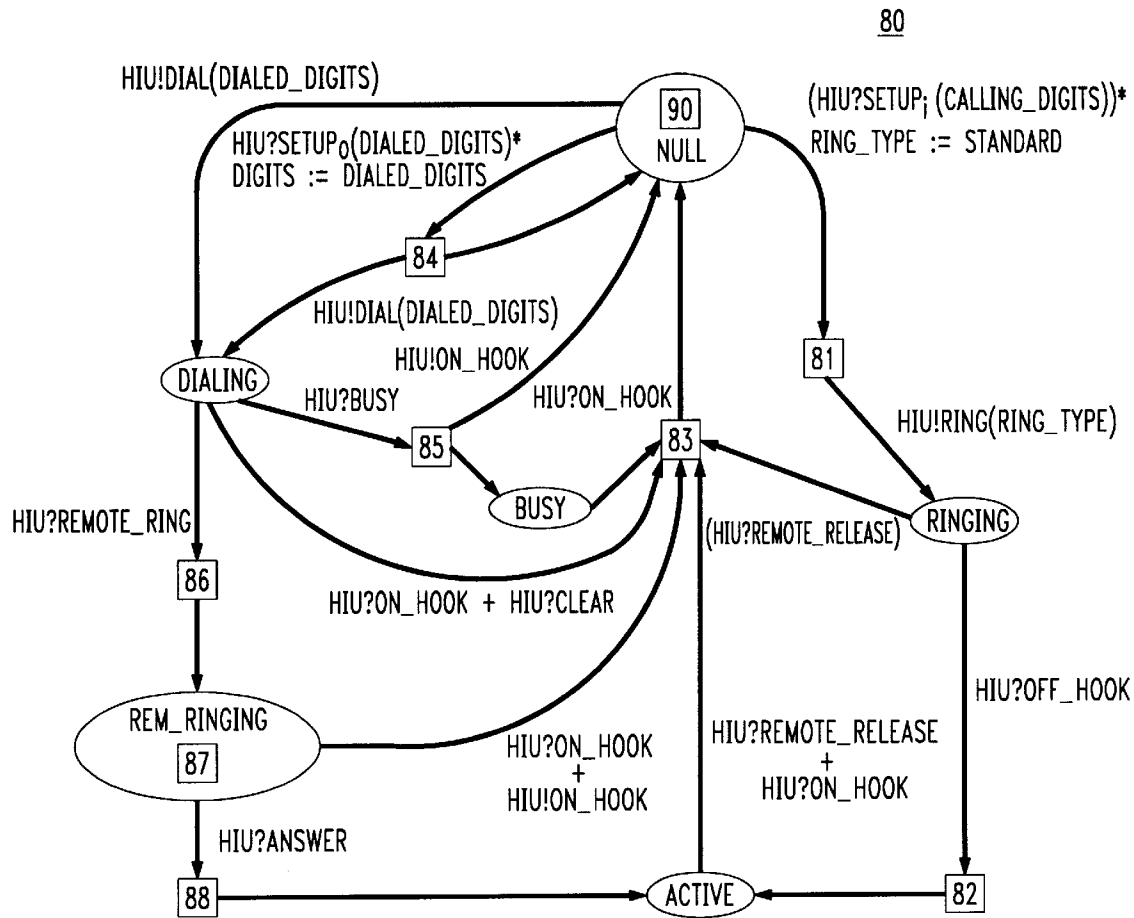


FIG. 8



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