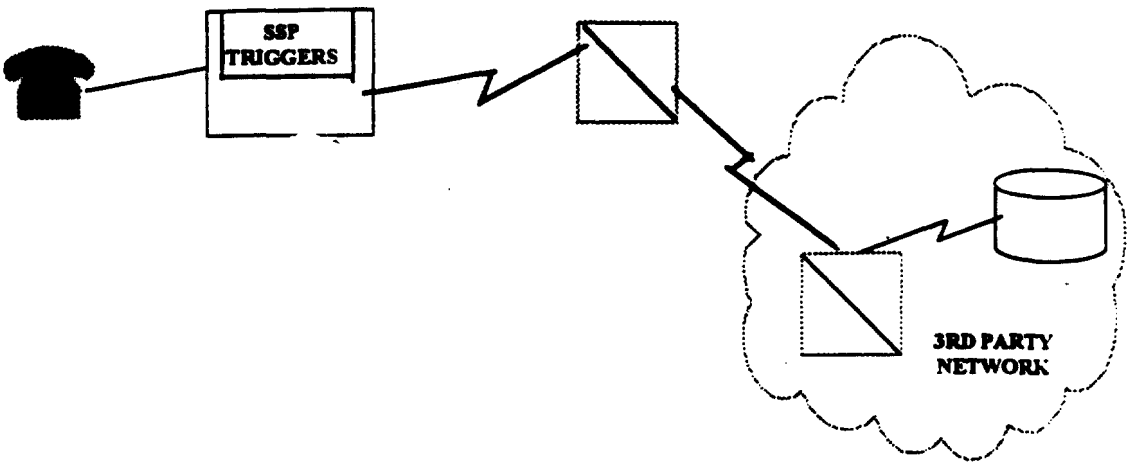
AIN SERVICE CREATION AND MESSAGE TRANSPORT



AIN- The capability resident in a SSP/NAP switching office to recognize certain events that requires: at the SSP, supension of call processing and lauching of SS7 TCAP query to a SCP

Features and Service Applications:

1-Audible Caller ID would allow a customer to receive an audilbe indication of who is calling. Different ringing can be assigned in the third party data base customized to calling number and name.

2-Emergency Calls could be handled so that a call to a doctor's office (special number) would collect customer medical history data prior to the call being delivered.

3-Snow Chain Calling activated by the school via a single call to a data base which then searches a profile list for all school families.

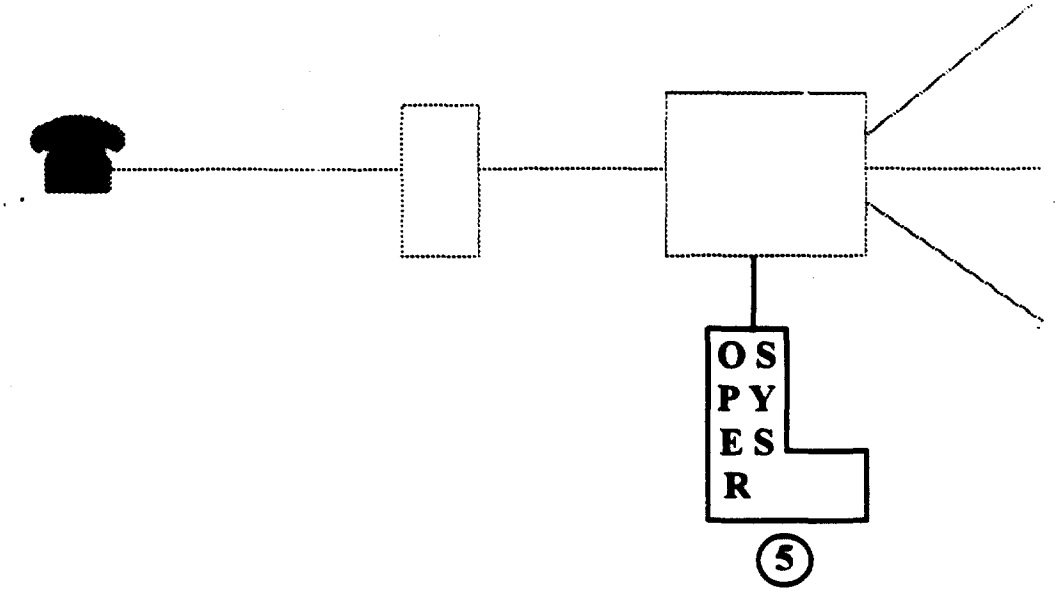
AIN was requested by the LECs as a means to accomplish:

-service creation & testing in a safe, non-penalty environment.

-feature interaction can be tested before a new service is applied to the customer's line.

-faster time to market because service creation is independent of switch generic and vendor schedules.

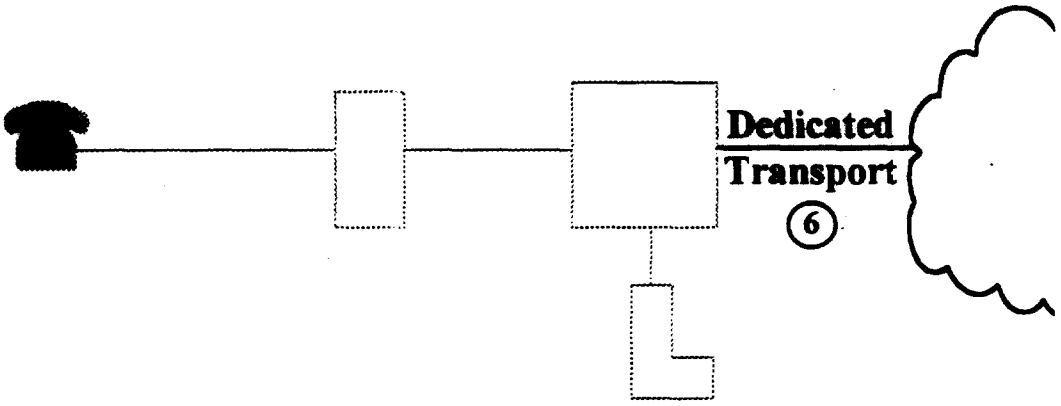
NETWORK ELEMENT
OPERATOR SYSTEM



The "Operator Systems" unit is the medium used to provide assistance to customers either of directory information or call completion type of services

Uses: These systems provide for processing and recording of special call types such as toll assist, public telephone call types and others requiring operator intervention and assistance. Directory services functions include storage of customer specific date and providing directory assistance. These services are provided through automated platforms as well as live operators or directory assistance operators. These systems also provide the capability for 911 calls to be transmitted to Pubic Safety Answering Points, directly (911) or via 911 access tandems.

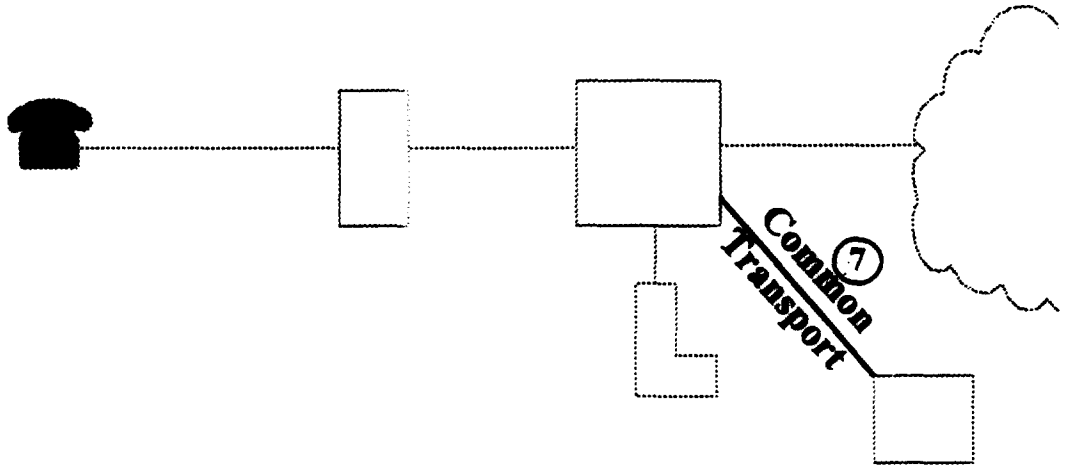
NETWORK ELEMENT
DEDICATED TRANSPORT



"Dedicated Transport" is the interoffice transmission path between a LEC end-office and an Interexchange Carrier's (IXC) Point of Presence (POP) that is dedicated to that carrier

Uses: Dedicated transport is used to carry accesss traffic between the local network and an IXCs network. Dedicated transport will also be used to deliver local and toll traffic between local providers for call termination.

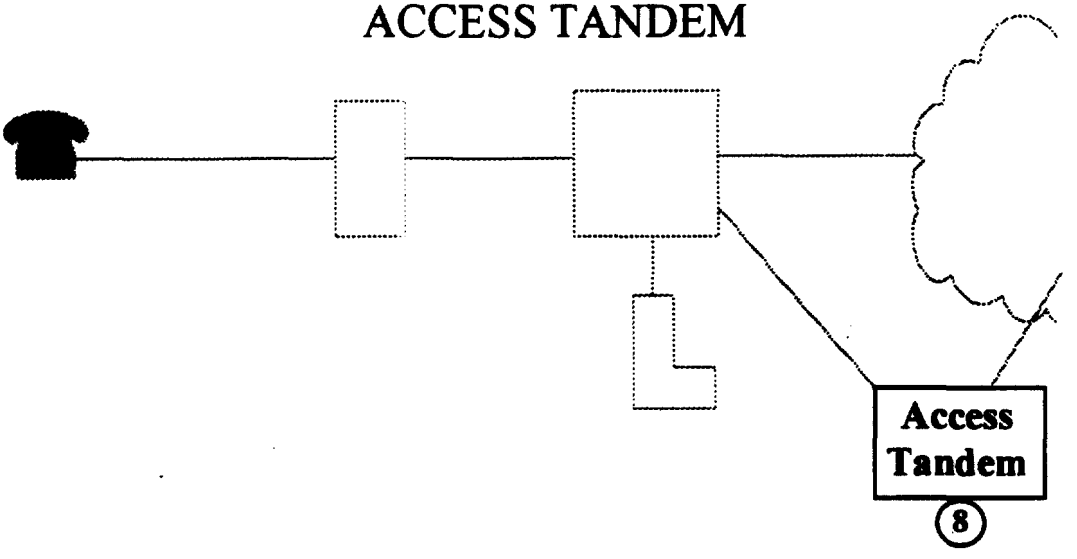
NETWORK ELEMENT
COMMON TRANSPORT



"Common Transport" is the interoffice trunking between an Access Tandem or End-Office that carries all types of traffic for multiple carriers in the LEC network

Uses: Common transport is used to carry aggregated traffic between end office and access tandem switches. Common transport is used for engineering and cost efficiency reasons. Also, common transport is frequently used to carry overflow traffic between switches when undesirable call blocking levels are reached on direct trunk groups.

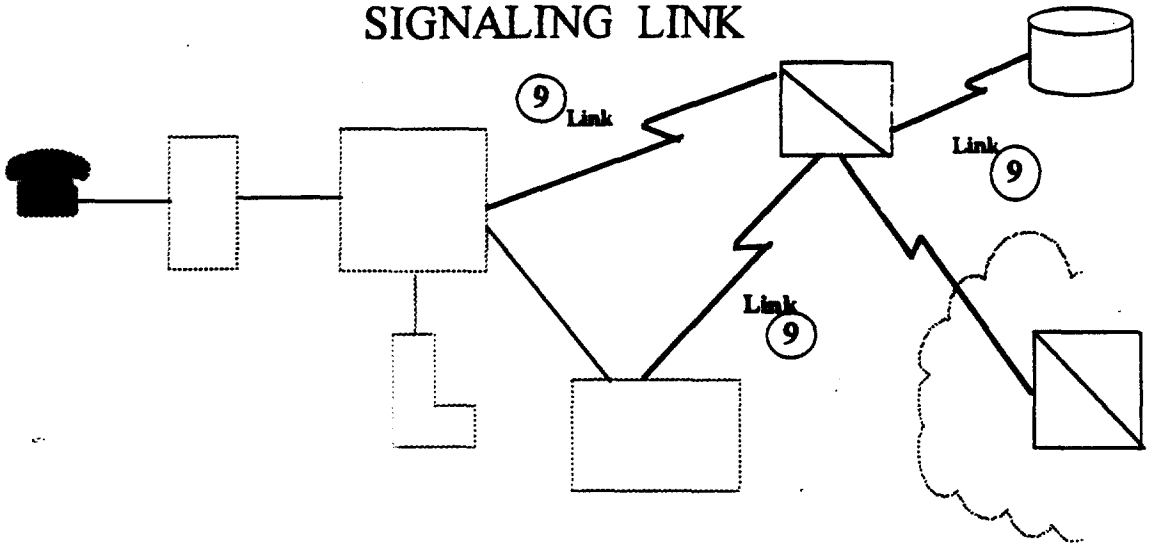
NETWORK ELEMENT
ACCESS TANDEM



The "Access Tandem" is the switching between dedicated and common transport facilities that provides traffic concentration and distribution for Interlata traffic, also the AT provides the Interexchange carrier with access to more than one end-office via the common transport

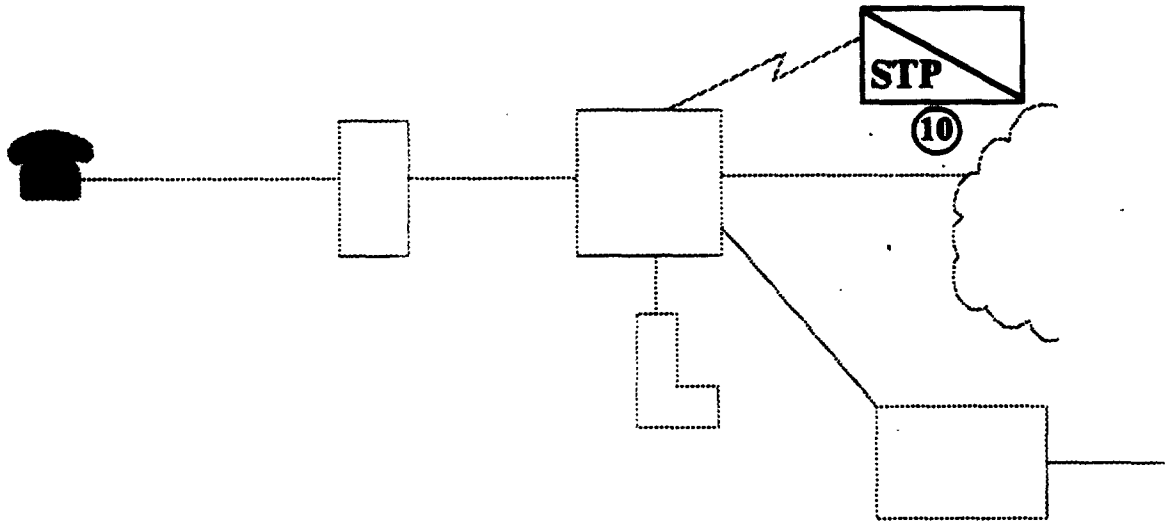
Uses: Tandem switching is used to concentrate traffic from multiple end offices and deliver the traffic to designated points within the LATA, e.g., IXC POPs. The concentration is done for engineering and cost efficiency reasons. Also, access tandems will be used by CLECs to deliver equal access traffic to a customer's designated intraLATA or interLATA carrier where the CLEC cannot, for cost reasons, build dedicated trunk groups to all IXC POPs within a LATA.

NETWORK ELEMENT
SIGNALING LINK



A "Signaling LINK" is the transmission facility in the signaling network which carries Out of Band signaling between either 1) A Switch and Signal Transfer Point (STP), 2) Two STPS, or 3) a STP and Service Contol Point (SCP). However, links that are homed on the LEC switch are not unbundled separately but are included as part of the locai switching element

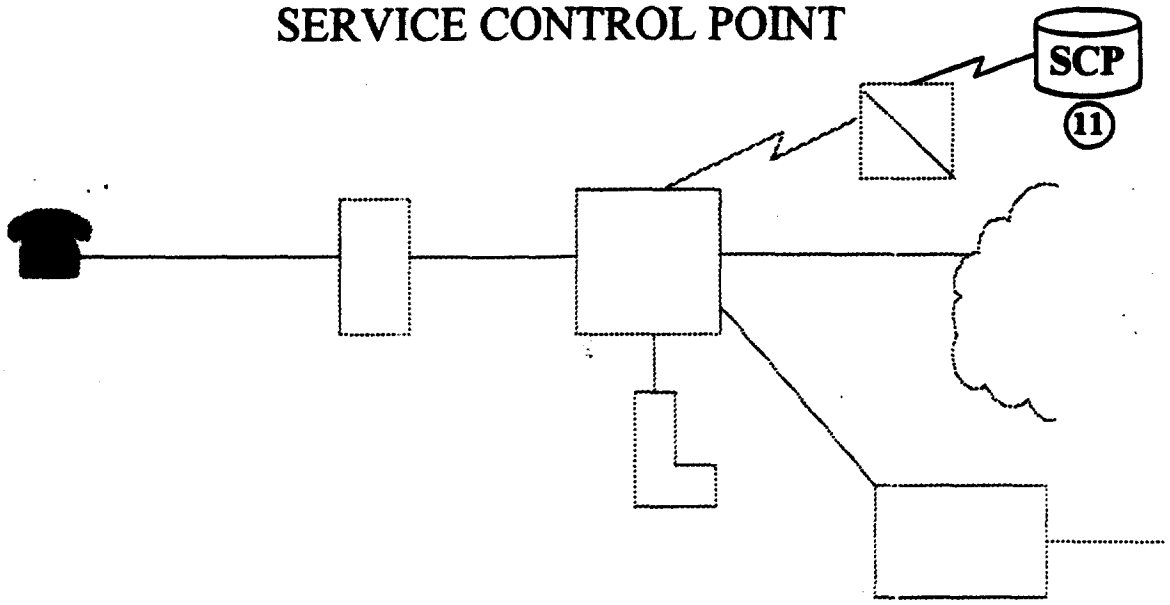
NETWORK ELEMENT
SIGNAL TRANSFER POINT



The "Signal Transfer Point" (STP) is the medium that routes signaling, by transferring, messages to either set-up the call or query a database

Uses: The STP is used in combination with signaling links to exchange SS7 messages among switching elements and data base elements. The SS7 messages are used to query 800 Number, 500 Number and LIDB data bases. In some cases, the LECs have deployed AIN data bases as well (Bell Atlantic, Ameritech, BellSouth and PacBell). In the future SS7 messages will be used to query Local Number Portability data bases.

NETWORK ELEMENT
SERVICE CONTROL POINT



The "Service Control Point" (SCP) is the database in the signaling network that contains service handling information with subscriber or application specific service logic

Uses: Examples include 800 Number and 500 Number data bases. These are used to determine the appropriate carrier of the call based upon the customer's selection of service provider. Also, the LIDB data base is used to validate calling cards and provide customer billing screening services, e.g. blocking of collect calls. AIN data bases are already deployed by some LECs and are used to develop new service applications. In the future LNP data bases will be deployed in LEC networks.