

Understanding Tandem Networks

Tandems are intermediary switches that connect two or more switches together, much like Chicago's O'Hare International Airport connects airline routes between markets. Instead of connecting markets, tandem switches connect carriers' switches to unify the Public Switched Telephone Network (PSTN). Without tandems, the exchange of voice traffic would be inefficient to the point of unmanageable.

Historically, the Incumbent Local Exchange Carriers (ILECs) owned and operated most of the tandem switches in the PSTN, and they were originally designed to connect only other ILEC switches. However, as competitive wireline, wireless, cable and broadband providers emerged they also had to rely on the ILEC tandem network to exchange calls. Over time, the volume of traffic and number of tandems became so large that the inefficiencies they were originally designed to eliminate were once again apparent.

In Chicago, for example, a carrier with five switches would need 85 separate interconnections to connect to all 17 area tandems to route traffic.

The competitive carrier becomes responsible for paying their largest competitor, the ILEC, for each interconnection and a per minute usage fee for using the tandem. The ILEC has little incentive to provide tandem services to their competitors and the costs eventually make their way to the consumer.

Neutral Tandem has found a solution.

THE NEUTRAL TANDEM NETWORK

Neutral Tandem is the first company to build an independent tandem network devoted exclusively to helping competitive carriers exchange traffic. As a result of Neutral Tandem's network, carriers no longer have to rely on or pay their largest competitor to complete inter-carrier calls.

With Neutral Tandem's highly scalable network infrastructure, carriers can more economically grow their business, reduce their reliance on the ILEC network, and pass savings on to their customers.

With its best-in-class technology, Neutral Tandem has created the largest non-PSTN interconnection network in the U.S. The company currently provides tandem services to over 90 major wireless, competitive local exchange companies (CLECs), cable companies and broadband providers reaching over 465 million end points (terminating numbers).