



## Managing Network Costs

The expenses associated with bandwidth and networking are a cost reduction target for managers in all businesses in all industries. Through technological and process improvements, significant efforts have been made to control bandwidth costs. Some of these have been successful (utilizing IP technology to maximize capacity of a circuit or route) while others have been highly publicized failures (constructing “pooling points” to enable bandwidth sharing between businesses by allocating peak usage across varying dates and times).

The common thread throughout all of these efforts is they are most often centered on a single point of the network, the long-haul or inter-city connectivity. Whether bandwidth is being pooled at a facility, shared through a common infrastructure like Asynchronous Transport Mode (ATM), or aggregated across an IP “cloud”, a simple fact of physics is that a sufficiently large “pipe” must be constructed connecting the local facility to the “cloud” to transport the maximum bandwidth needed by the facility. This relatively inelastic local loop needs to be properly sized and located to connect an end-user premises to a carrier Point of Presence (PoP) so that the zeroes and ones of digital communications can freely traverse the network.

This is not to say that the efforts to reduce inter-city facility charges have been in vain. Any cost savings, from any portion of a facility, is significant in an environment of challenged margins and the need for profitability. The key, however, is that efforts by users to bargain down prices to maximize savings potential coupled with over-capacity in the inter-city network from the multiple providers scrambling to gain market share has led to rapidly falling bandwidth prices for this segment of the connectivity. The result is the inter-city portion becoming a relatively minor expenditure in the overall equation when compared to the costs of local loops.

In the United States for example, there are more than a half dozen national network providers as well as multiple regional providers fighting amongst themselves to capture customer traffic. What almost all of these providers have in common, however, is a lack of ubiquity in their footprint such that while they provide PoP to PoP connectivity, they must rely on another provider, most often the regulated incumbent, to provide the local loop portion of the connectivity. This has led to a network cost imbalance where the inter-city portion of a circuit is often significantly less expensive than even a single local loop.

For a 900+ mile SONET circuit we recently priced in the United States, the local loops accounted for 72% of the total monthly charge, with the inter-city portion amounting to just over a quarter of the total cost. In addition, when discussing circuit purchases with suppliers, we find the inter-city providers open to negotiation while the

incumbent local loop provider attitude is more often than not a take it or leave it proposition.

Recognizing this, there are still ways to reduce the costs of local loop connectivity (network access). These include:

- Purchasing from alternative local services providers including metro fiber optic companies, cable companies, and competitive carriers
- Utilizing the proper tariff or rate structure when purchasing from providers
- Minimizing local loop length by connecting to the optimal carrier point of presence and choosing inter-city carriers accordingly
- Ensuring that the distance utilized by the local provider from the customer premises to the network PoP is properly computed, resulting in a price per mile/kilometer calculation that is not excessive.

Through Magenta netSystems and Magenta netSolutions we address these points when pricing both new circuits and optimizing existing networks. The Magenta Connectivity Lifecycle Manager (CLM) database includes up-to-date pricing and network location information from incumbent providers and leading alternative carriers. Our geographic mapping and information capability plots customer addresses against serving telco wire centers and inter-city carrier points of presence, ensuring that distance is calculated accurately and exactly. Finally, our skilled analysts continuously review pricing algorithms, rates, and tariffs to identify the right solution for an application, often reducing costs significantly by applying the most favorable terms to a purchase.

Carrier data is available from multiple sources, both public and private, but the transformation of this disparate data into actionable information by the Magenta netLogic team differentiates our offerings and creates the value our clients desire. In Magenta netSystems we provide a tool to accurately quote both access and inter-city connectivity, optimally pricing the connections needed to move data between locations. Magenta netSolutions reviews historical network data and provides the consulting acumen to identify savings potential from applying accurate pricing rules, properly computing distances, utilizing alternative provider offerings, and reconfiguring the network to utilize more cost effective PoP locations and data homing arrangements.

By utilizing the services and systems of Magenta netLogic, our clients can optimize network costs, in both the local loop and the inter-city network, quickly shopping through the myriad of service choices available to find the solution best suited to the situation at hand. For more information on how Magenta can reduce your costs of doing business, contact us at [sales@magenta-netlogic.com](mailto:sales@magenta-netlogic.com)