Telecom Management Best Practices

PART 1: SOURCING

With telecom services continuing to account for 45% of annual IT Spend (Gartner Worldwide IT Spending Forecast Q4-2012), IT leaders must continue to focus on optimizing the management of their telecom environment. In order to effectively manage an enterprise's telecom environment, one must consider all aspects of the telecom lifecycle. From sourcing and procurement, to service, management and optimization and onto accounting and business intelligence; the IT department must ensure that it is optimizing each portion, and leveraging the right resources and tools, whether internal or external, to achieve the greatest value.

The telecom lifecycle commences with sourcing. Selecting the right carrier, understanding the idiosyncrasies of the various technologies, and maintaining the fundamental role of technology in the business, are key elements to ensuring effective management of the sourcing process. After you select your technology and identify your carrier options, negotiating a favorable contract, dedicating the right resources, and drafting comprehensive project plans, are essential elements of the sourcing process to ensure a successful telecom management strategy. This paper shares six steps to succeeding at telecom sourcing.

1. LEARN YOUR CARRIER OPTIONS:

Considering the critical nature of an enterprise's network, an essential starting point of the sourcing process is to learn the various carrier options. All carriers are not created equal. Tier 1 carriers offer the best peering, and by default provide similar industry-standard Service Level Agreements (SLAs). They typically do not over-subscribe their networks, and they provide the greatest coverage. This becomes crucial when looking at a customer-managed VPN-based WAN solution, for example, where deploying a homogeneous network reduces the challenges of overcoming the whims of the Internet. A Tier 1 enabled network naturally offers better peering and reduces the unpredictability of the Internet. On the other hand, Tier 2 and some cablecos provide inexpensive alternative solutions. Although their networks may not provide the same SLAs or quality, they may prove sufficient for a small branch office or as a backup solution.

CUSTOMER EXAMPLE:

One of our financial services customers, a global cash logistics organization, had multiple performance issues across their 150-site MPLS network. The incumbent provider was a Tier 2 carrier whose network was not designed in a way to withstand fiber cuts. As a byproduct, our customer's mission-critical cash management centers suffered due to unpredictable outages. When managing an RFP and selecting a carrier for their next generation network, we ensured that we selected a carrier that would provide such resiliency and leverage technologies that ensured automated re-routing.

2. UNDERSTAND THE CARRIER TECHNOLOGIES:

Network technologies are evolving at break-neck speed. In order to invest in the right and scalable technology for an enterprise network infrastructure, the IT leader must understand the differences between the various technologies. For example, Ethernet comes in several flavors. Some, like Ethernet-over-Copper, are cost effective but have a limited footprint and are distance-sensitive. Conversely, many Tier 1 and Tier 2 carriers have built their networks out and invested in "lighting up" strategic buildings with fiber to offer Native Ethernet. This provides an alternative to the LEC for the last mile, and while it can prove more expensive, it is not distance-sensitive and can prove essential for carrier redundancy and fault tolerance. Similarly, when considering a technology like Enterprise SIP, only a few providers have invested in automated failover across multiple strategically deployed Session Border Controllers, to offer true network fault tolerance. Staying abreast of the latest technologies and how the carriers have deployed them is essential when considering your network architecture.

> **CUSTOMER EXAMPLE:**
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> *One of our healthcare customers, a Fortune 500 pharmaceutical company, came to us after struggling with performance on their WAN. Despite having selected a Tier 1 carrier for their global MPLS network, they had overlooked the fact that several locations were supported by Network-to-Network Interfaces (NNI), which meant that those sites experienced performance issues due to reliability issues across the secondary IP carrier network. When sourcing their new network for them, we ensured that the chosen carrier offered global reach to their specific locations to eliminate any finger-pointing and create a predictable environment.*

Word of Caution:

Many carriers' sales compensation plans are positioned to promote a specific technology, particularly if the carrier needs to recover its investment in such technology. It is incumbent upon the IT professional evaluating various solutions to ensure that whatever he or she is considering is not simply being presented to meet a specific quota.

3. UNDERSTAND YOUR ORGANIZATION'S BUSINESS NEEDS

While it's beneficial to understand the technologies that are available in the marketplace and the differences between the various carrier options, one must apply that knowledge in the context of the specific and unique business needs and requirements. For example, a bank's requirements

for security are very different from that of a retail chain or a legal practice. Equally important is a firm understanding of an organization's requirements for uptime and redundancy, and tolerance for downtime. Those needs could be transitional, as the case would be during a specific or unique project; or they could be ongoing. The IT leaders must spend time outlining an organization's needs ahead of embarking on a sourcing exercise, and they must ensure throughout the sourcing process that they are reviewing the various technologies and carrier options in the context of the business needs.

> **CUSTOMER EXAMPLE:**
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> *In our first example, our cash logistics customer was in active acquisition mode, and as a byproduct, was consolidating offices across the U.S. We needed to ensure that the contracts we negotiated with the carriers allowed for easy portability and waiver of early termination fees on circuits at vacated locations. Due to the financial impact that service disruption would have on their business, we also had to be sure to negotiate a robust SLA, while also ensuring a solid backup strategy.*

> **CUSTOMER EXAMPLE:**
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> *One of our large healthcare customers, a world-renowned medical center, was migrating to new data centers. Due to the mission-critical nature of patient applications, the new carrier architecture required 4 essential elements: 1) security, to comply with HIPAA requirements; 2) low latency, to support a transactional environment; 3) high throughput, in support of bandwidth-demanding applications like Radiology; and 4) full carrier fault tolerance. The resulting secure private network included 3 Tier-1 carriers who provided access and route diversity, automated failover and low latency.*

4. NEGOTIATE ROBUST CONTRACTS:

The sourcing process requires the IT leadership to identify specific technologies and carriers. Next comes the contract phase. While many organizations focus on obvious elements in the contracts such as doing away with an ever-green clause or ensuring the fairness of an assignment clause, there are other elements that often go unnoticed. An example of that is portability, which becomes essential when negotiating a multi-site implementation, especially if the business is anticipating office moves. SLAs are also key elements of a contract. When dealing with a data service like MPLS or Enterprise SIP for example, you must ensure that you have a clear understanding of a provider's published SLAs for network availability, latency, jitter, packet loss, and mean time to repair. Most carriers publish standard implementation intervals by service and service type; some will provide SLA credits for missing those published installation intervals. You must also have a fundamental understanding of miscellaneous charges

(supplementary fees, inside wiring fees, hardware configuration fees, and re-dispatch fees to name a few) to eliminate any surprises once the deployment process commences. Other important factors to negotiate include overlap-in-billing credits when migrating from an existing carrier network, dispute windows, and cleft-based industry adjustments, when negotiating longer term contracts.

5. ENSURE ADEQUATE IMPLEMENTATION SUPPORT

A part of selecting the right carrier for large projects is ensuring the commitment of the right and dedicated resources to execute the project. Dedicated project management and engineering personnel are essential resources to ensure the timely and effective deployment of the new carrier technologies. The project manager will oversee the carrier responsibilities, manage deliverables, and work with local contacts to coordinate delivery and deployment of the new services. A design engineer will put together network diagrams, scope of work documents and review testing plans with the IT team to facilitate a well-planned migration strategy. An implementation engineer will work with the carrier during the testing and follow a stringent process to ensure the proper testing of the new technology and services. For example, during enterprise SIP implementations, testing E911 from each location serviced by the SIP Trunking environment is an essential step that many engineers omit, and can subsequently have grave business ramifications if it proves problematic or goes uncorrected.

6. HAVE A SOLID PROJECT PLAN

Every project must start with a clear project plan that incorporates a well-thought out scope of work with clear objectives, responsibilities, timelines and expectations. The project plan must also contain a well-defined testing plan that provides a clear cut-over strategy. The IT leaders must ensure that the carrier will be able to execute such a project plan and dedicate the necessary resources to ensure its success.

Many IT organizations attribute their success in managing complex migrations to their technical knowledge, the experience on their teams, and their wealth of technical tools. There's no doubt that these factors are important to any organization's success. When it comes to managing a complex transition, however, success hinges more on the discipline to implement well-defined and consistent project management principles, and ensuring that everyone involved, including the carrier resources, are following those principles.

Effective management of the sourcing process eludes many organizations, which results in a suboptimal and more complex telecom environment to manage, while leaving much to be desired for ensuring the organization's best interests. Leveraging the right experience and methodical practices will help the IT leaders of the organization set the stage for a properly managed telecom lifecycle. Enterprise organizations have the option of hiring those resources or partnering with a Telecom Lifecycle Management firm that has the expertise and tools to effectively manage this important process. While there are many professional services organizations that offer such a service for a fee, the new model of Telecom Management as a Service (TMaaS) presents an appealing value proposition, as the cost to gain such expertise is heavily subsidized, as is the cost for the tools necessary during the next steps of the telecom lifecycle.

ABOUT VCOM SOLUTIONS

vCom Solutions revolutionizes the way enterprises manage their entire telecom lifecycle. vCom customers gain control over inventory, expenses and carrier relationships, achieving better business intelligence that drives profitability. vCom's Telecom Management as a Service (TMaaS) solution includes a suite of cloud-based telecom management software tools, complemented by a full portfolio of professional services.

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