Compass
Lasting Performance Improvement

Negotiating and Implementing MPLS Services

What you Don't Know Can Hurt You

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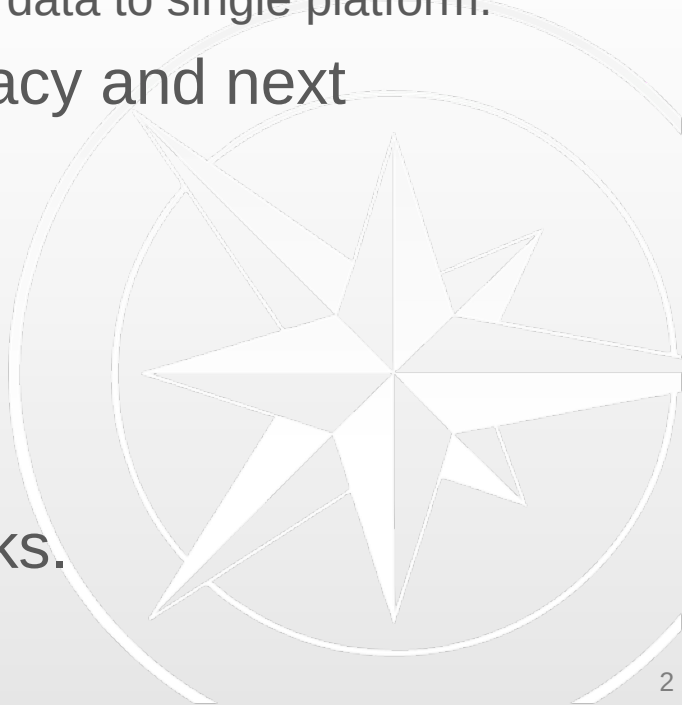
Negotiating and Managing MPLS

MPLS: Benefits

- Any-to-any, full-mesh communication offers:
  - Reduce single point of failure opportunities.
  - Flexibility in Disaster Recovery planning.
- Ability to improve service quality across networks.
  - Prioritization of application traffic
  - Convergance and virtualization of voice, video and data to single platform.
- MPLS network access options span legacy and next generation services:
  - Digitial Subscriber Line (DSL)
  - Leased Line
  - Frame-Relay
  - VSAT
- Remove complexity of disparate networks.



MPLS: Potential Challenges

- MPLS can benefit and impact application performance and network management in unexpected ways.
- Global networks transport converged services through MPLS Nodes thousands of miles apart.
- International carriers rely on alliances to provide services to a fully global customer called MPLS VPN Interprovider Connections.
- MPLS VPN Interprovider Connections allow movement of trafic among carrier partner networks for global coverage.
- MPLS infrastructure is still not available in all countries.
  - Some sites may still require backhaul to nearest carrier MPLS node.
  - Can impact enterprise application performance.

Negotiating a Service Contract for New Technology

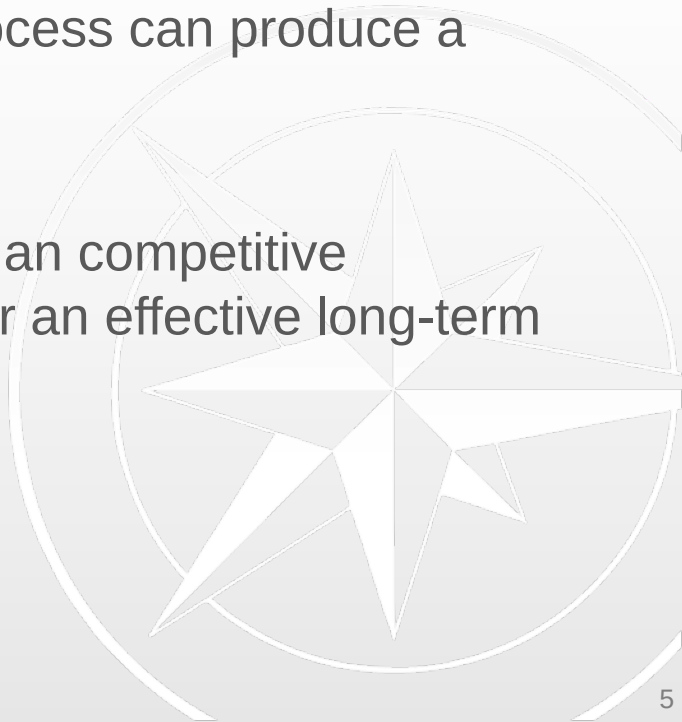
- Market competition is the best way to negotiate a new contract for telecom services.
  - Request for Proposals
  - Benchmarking
- Carriers don't know what the market will bear, don't know their implementation/management cost, and can't forecast demand.
- The best carriers will use microeconomic modeling and marketing surveys to determine an initial service price, but 'mid-course corrections' in product pricing may be necessary based upon actual market acceptance.
- This situation characterizes the introduction of T-1, VoIP, wireless, and LAN services.
- MPLS is no different.

A Systematic Approach to Negotiating for MPLS Services is Essential

- Absent established market rates, top-performing organizations take a systematic approach to determining a target market price, based on existing internal, carrier, and public information, as well as professional experience.

- Analysis has shown that when new technologies are introduced, an open, competitive, RFP-based procurement process can produce a semblance of true market prices.

- Applied properly, such an initiative can result in an competitive commercial terms and establish a foundation for an effective long-term agreement.



Elements of an Effective RFP for MPLS Services

- Multiple facilities-based carriers should be included.
- Tier 1 and 2 global providers offer the most competitive solutions.
- An open and competitive process based on price, technical capability and service delivery is essential.
- The RFP should contain service level expectations for:
  - Technical solution performance .
  - Service delivery, both technical and event handling.
  - Account governance.
- Implementation of any new service should be on a proof-of-concept basis.
- 2-3 year commitment with annual market reviews (benchmarks).
- The RFP process can cost $150-400k, based on numerous factors.
  - Understand current network design and cost.
  - Clearly define business, application and service requirements
  - Model carrier proposals on like-for-like basis.

One: Proper Prioritization of Applications

- Applications on an MPLS network should be designated with an appropriate Class of Service (CoS).
  - Carriers offer varying numbers of CoS designators (4-8).
  - Quality sensitive applications accomodated on specific classes.
- Application CoS bandwidth allocation impact varies by CoS.
- Classification enables network managers monitor application performance and adjust the network as required.
- Enterprises need to understand the demands of:
  - Business applications (ERP, CRM)
  - Real-time applications (voice, video, multicast)
  - General service applications (Messaging, browsing)
  - Long-term IT strategic plans.

Two: Clearing Up the “Cloud”

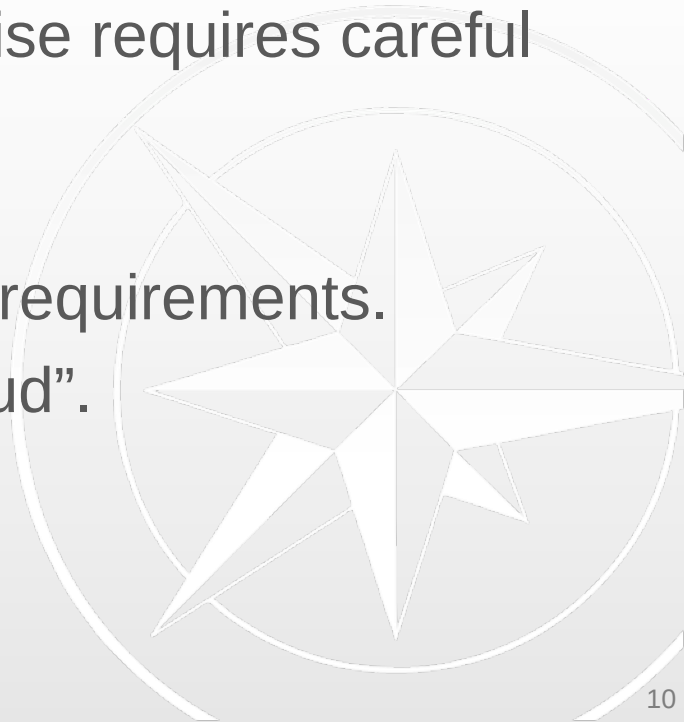
- Network managers often assume that additional bandwidth will improve performance when performance issues arise.
  - Bandwidth is not always the answer.
- Network architects moving to MPLS need the capability to see inside the complexity of the MPLS “cloud”.
- Network performance tuning requires:
  - Understanding application demands, performance and behavior.
  - Tools to allow visibility of traffic.
  - Business and IT strategic requirements.

Three: Be Dynamic

- Be aware of how changing business requirements impact application and network performance.
  - New locations
  - Shifting manufacturing demands
- Mergers, acquisition and divestitures impact application traffic demands.
  - Application traffic demands, and flow.
  - Acquired company has entrenched VoIP strategy.
- Traffic may increase early in consolidation initiative and ultimately decrease over time.
- Network managers must facilitate communication between business, application development teams and the carrier partner to:
  - Ensure common understanding of requirements
  - Clearly define management and measurement.
  - Agree success criteria.

Summary and Discussion

- Negotiating a contract for MPLS presents commercial, technical and service delivery challenges.
- The RFP process can produce competitive commercial offerings in the absence of established market benchmarks.
- Implementing MPLS in a global enterprise requires careful planning and rigorous governance.
- Three keys to implementation:
  - Understand and prioritize application requirements.
  - Understand what happens in the “cloud”.
  - Prepare for a dynamic environment.
- Success delivers *REAL* benefits.



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