Case Study # 2

Wide Area Network
Client Background
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- Statewide offices (11)
- Newer technology phone system
- Mostly Cat 5e or better cable
- Mostly power over Ethernet switches
- Frame and ATM wide area network
- Voice quality issues
What the Client Wanted

- How to fix lingering voice quality issues
Step by step process

1. Established project team
2. Developed planning assumptions
3. Assessed wide area network (WAN)
4. Prepared budgets
5. Choose a strategy
Voice Quality Causes

- Existing telephone system
  - Telephone interoperability
- Wide area network
- Local area network
- Cable
Possible Choices

- Conduct a network assessment by third party
- Upgrade wide area network
- Strategic plan for replacement
Possible Choices

- Start with wide area network
  - Upgrade to Multi Protocol Label Switching (MPLS) network
Vendors Reviewed

- AT&T – ASP
- AT&T
- AT&T - ACC
- New Edge
- Qwest
- Voxitas
- Global Crossings
Vendor Pricing

- Monthly recurring charges
- ASP host site – 6 Mb for MPLS
- ASP host site – 3 Mb for Internet
- All other sites 1.5 Mb
Vendor Pricing Notes

● **Included**
  – Installation – 3 - year term except for # 6
  – Managed routers
  – $800 per month for internet access charge by ASP

● **Not included**
  – Reprogramming charges
  – Survivability options
  – Taxes
MPLS Monthly Recurring Charge
Round 1

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<td>Current</td>
<td>$4,829</td>
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**MPLS Monthly Recurring Charge**

**Round 2**

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MPLS Monthly Recurring Charge
Round 3

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Recommendations
Recommendations
Internet Access

- Go with incumbent
  - 3 MB Internet Access
  - $800 per month
Recommendations
MPLS Network

- First choice – Go with # 4
- Second choice - Go with # 1
Recommendations

Side Note

- Pricing went down from $10,820 to $7,861 a savings of $2,959 per month from Round 1.
- Total savings over the life of the contract from incumbent’s original quote.

$106,524
PRI Recommendations
Vendors Reviewed
PRI

- Dynalink
- ITC
- Access One
- Airespring
Vendor Pricing Notes

- #1 rates were based upon a fixed contract for monthly usage guarantee (MUG) of 50,000 (expired) or 75,000 minutes per month
- Others on per minute basis
PRI Comparisons

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<tr>
<td>MUG</td>
<td>$1,000</td>
<td>$1,500</td>
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$3,500 $3,099 $2,102 $3,820 $4,672
**Recommendations**

- **First choice – # 3**
  - No minimum per month usage commitment

- **Second choice – # Revised 1**
  - $997 per month minimum more
Original # 1’s pricing for PRI with 50,000 minutes per month = $3,500

# 3’s pricing for PRI with 75,000 minutes per month = $2,102
- Monthly savings of $1,398 per month

Total savings over the life of the contract = $50,328
Conclusions

- Network connectivity is growing faster than telecom due to wireless and special purpose networks.
- Funding to refresh telephone systems, local area and wide area networks is a common problem.
Conclusions

- Voice over IP transition is complex
- Network and network security will continue to grow and be refreshed to stay current
- There are choices in the market for you to compare
Discussion
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