

UNIVERSITY AT BUFFALO Phone System Consolidation

Deans and Vice Presidents Meeting

September 22nd, 2006

Agenda

- Context and Problem Definition
- Proposal
- Options
- Financial Model and Benefits
- Telephony Trends
- Next Steps
- Questions

What if we can?

- Transform our telecommunication facilities to:
 - Support university expected growth goals at minimal marginal cost
 - Generate \$8.0M - \$16.0M with business applications
 - Support the IT vision of creating a Mobile campus

UB's Phone System: Context and Problem

- Telephone services are currently provided to academic units, academic support units & residence halls & appts
- UB's telephone systems are disparate, complex, obsolete, cumbersome and do not meet current or future needs:
 - As of today, 75 separate telephone systems that are not integrated
 - Annual cost of \$3.8M plus ~\$500,000 for equipment & staff
 - Systems are aging, in need of expensive repairs and at capacity
 - Current system can't easily be leveraged for other applications (mobile computing) or the trend toward data and voice infrastructure convergence
 - Costly and time consuming to deploy in new space
- UB2020 IT transformation recommendation is to consolidate and improve telephone communications service for the campus

Proposal

- Consolidate 75 phone systems into one system by deploying VoIP telephone system in the academic and academic support areas, but excluding residence halls
- Units will reinvest the capacity realized (28%) from the VoIP system after amortization
- Eliminate 90% of billing function

Telephony Options

System	Capital Cost	Annual Operating cost	Annual cost reduction	Industry Direction	Future Application Integration Potential
Centrex	\$0	\$3.8M	\$0	No	Low
VoIP	\$5.1M	\$2.3M	\$1.5M	Yes	High
TDMX PBX	\$10M	\$2.5M	\$1.3M	No	Low
AT&T Hosted VoIP(2)	\$4.4M	\$11.2M	-\$7.4M	No	Low
PATEC Hosted VoIP(2)	\$4.0M	\$4.0M	-\$0.2M	No	Low
Verizon Hosted VoIP(3)	\$1.2M	\$6.0M	-\$2.2M	No	Low
Cellular	\$0	\$8.4M	-\$4.6M	No	Low

Financial Model

- Assuming 7,750 phone sets (excluding residence halls):
 - Option One (high-end phone sets):
 - Capital investment \$5.1M
 - Operational cost \$1,937,056
 - Annual cost reduction \$790,000 (28%)
 - Payback is 6.3 years
 - Option Two (mid-range phone sets):
 - Capital investment of \$3.4M
 - Operational cost \$1,937,056
 - Annual cost reduction \$790,000 (28%)
 - Payback is 4.4 years
 - Option Three (basic phone set)
 - Capital investment of \$2.6M
 - Operational cost \$1,937,056
 - Annual cost reduction \$790,000 (28%)
 - Payback is 3.4 years
- An additional \$500,000 in cost reduction will be realized by the individual units (equipment & staff cost)

Proposal: Benefits and Risks

• Benefits

- Support for university expected growth at a far lower cost than current model
- Operational cost will be 28% less than current system
- Financial gains of ~\$8.0M by 2020
- Reduced billing management cost to central office and decanal units
- Reduced time to execute telephone moves by two weeks on average
- Fully integrated system across the campus
- Potential for integration with business applications (Service desk, SRC)
- Support the IT vision of creating a Mobile campus

• Risks

- New security concerns
- Network becomes an even more critical infrastructure

Telecommunications Industry Trends

- New Digital Model for Telephony (bits are bits):
 - Voice and data infrastructure are converging
 - Flat rate vs. rate per minute (data access vs. minutes used)
 - Integrated telephony system with business applications
- Future Direction:
 - By 2007, Voice Over Internet Protocol (VoIP) phones will account for approximately 75% of world voice services. (Frost & Sullivan, 5/2001.)
 - By 2007, 72% of organizations are implementing or planning to convert to IP based telephony system. (Studies by Sage Research)
 - By 2010, 90% of new telephony sales sold will be IP based (Gartner)
- Drivers:
 - The top drivers of VoIP are: having an integrated phone system across multiple locations, scalability, operational cost savings, and converging voice and data networks
 - Next to basic voice, money saving long-distance/toll bypass is the highest ranked application for VoIP

Institutions of Higher Education	Other Organizations
Florida International University (~6,000 Cisco IP phones) *	Bank of America (~15,000 Cisco IP Phones)
The University of Guelph (~7,000 Cisco IP phones)*	Boeing (~15,000 Cisco IP Phones)
Brigham Young University (~8,000 Cisco IP phones) *	Airbus (~40,000 Cisco IP phones)
Concordia University (~3,000 Cisco IP Phones)	British Airways (deploying ~14,000 Cisco IP phones)
SUNY Cortland (~3,000 Cisco IP phones) *	Ford Motor Company (~18,000 Cisco IP Phones)
SUNY Central (~700 Cisco IP Phones) *	Wachovia Bank (~15,000 Cisco IP phones)
SUNY Maritime (~300 Cisco IP Phones)	HSBC Bank (~15,000 Cisco IP phones in Europe)
Kentucky Community College System (~6,000 Cisco IP phones)	M&T Bank (~1000 Cisco IP Phones current, 15,000)
Brandeis University (~6,500 Cisco IP phones)	Smithsonian Institution (~6000 Cisco IP Phones)
Case Western University (~7,000 Cisco IP phones)	IBM (~30,000 Cisco IP Phones)
Erie Community College (~2000 Cisco IP Phones)*	

* Directly contacted by UB staff



Next steps

- Senior leadership endorsement
- Meet with departments to review configuration requirements
- Review implementation schedule and plans with the campus
- Deploy in parallel with existing system
- Train users
- Remove old systems

Questions?