



VOIP Proposal

Prepared for: Linda Alexionok, Executive Director
Prepared by: Clint Morrow, Systems Administrator

October 17, 2008



Executive Summary

Overview

Problem

Children's Campaign's office phone system network is aging rapidly. Occasionally, it also suffers from equipment malfunction which necessitates the need for a system reboot. In addition, several phones consistently drop calls on a regular basis. The current workaround to this problem is to switch the phones out to desks that are currently unused. Any additional employees hired would limit our ability to swap phones. In consequence, dropped calls would be a recurring issue.

Due to the proliferation of VOIP technologies, this provides the Children's Campaign an opportunity to upgrade the phone system and internet infrastructure while saving money in the long run.

VOIP Explained

VOIP, an acronym for Voice Over Internet Protocol, utilizes an internet connection as a conduit for voice calling. This provides several added benefits which include:

- A reduction of costs by eliminating the majority of our monthly phone expenditures
- The ability to "carry a number" to employee cell phones while they are out of the office
- Voicemail messages forwarded to email addresses
- In-house conference calling for up to 5 attendees
- Consolidated long distance into the same monthly bill

Considerations

In order for a VOIP solution can be considered, a consideration of hardware requirements must be analyzed. Since VOIP uses an internet connection, our internet connection bandwidth (pipeline) must be large enough to accommodate it as well as existing internet usage.

Currently, our Embarq DSL Internet connection does not provide the required bandwidth to handle both VOIP and normal internet activities. However, after researching several providers, Comcast offers a business-class cable internet connection that will accommodate our needs.

Solution

I recommend that we choose _____ as a replacement to our current phone system. While the initial expenditure is high due to equipment, labor, and installation costs, the system would pay for itself in only __ **months**.

Steps Needed for Implementation

In order for us to implement this solution, several steps need to be taken.

1. Order and set up Comcast Cable Business Class Internet
2. Discontinue Embarq DSL Internet and reduce monthly plan to a single phone line
3. Order and configure _____ hardware.

Due to logistical limitations, a month of overlap of monthly recurring charges from various vendors may be necessitated because of the need for 100% uptime.

Pros

- Greatly reduced monthly expenditure
- Lowest monthly recurring cost
- Increased feature-set, as described above

Cons

- High initial expenditure

Budget Projection Overview

This chart summarizes the following pages in further detail.

Current Monthly Expenditures	\$700.32
Proposed Solution 1 Monthly Expenditures (LinuxSys)	\$498.40
Proposed Solution 2 Monthly Expenditures (PSC - Cisco Option)	\$473.40
Proposed Solution 3 Monthly Expenditures (PSC - LinkSys Option)	\$473.40

Budget Expenditures

Current Expenditures

Below is a list of current expenditures related to our phone and internet usage.

We currently spend \$330 a month for an Embarq DSL Internet connection, which does not meet our growing needs. A proper data backup implementation for our Documents Folders, Public Library Files and also handling VOIP would not be sufficient using Embarq. We are also paying for Centrix service that has not been fully utilized by our phone systems. However, an Embarq representative explained that we have the Centrix service because it reduces us costs compared to a standard, non-Centrix phone line. Regardless, we can reduce our monthly phone expenditures greatly by switching to VOIP.

We currently pay approximately \$175 a month for long distance. This charge varies from month-to-month. \$175 is an estimate of past expenditure history.

We currently pay \$195 a month for conference calling ability. Conference Calls Unlimited allows for up to 50 users per conference. A VOIP solution is available, but we would only be able to accommodate as many external clients as we have phone lines. Our proposed VOIP solutions would only allow for 5 simultaneous clients. We can elect to keep Conference Calling Unlimited if this poses a problem.

Monthly Recurring Charges

Description	Monthly Charge
Embarq Local Phone and DSL Internet Service	\$330.32
Qwest Long Distance	\$175.00
Conference Calls Unlimited	\$195.00
Total	\$700.32

Proposed Solution 1 Expenditures (LinuxSys)

LinuxSys is a local VOIP provider in Tallahassee, FL. A LinuxSys VOIP solution would reduce some of the initial hardware costs due to the ability to adapt our Linux server to serve as the VOIP server as well. Andrew McCrory offered us this solution as he originally installed our Linux server approximately two years ago.

This solution would offer **12 VOIP phones**, a re-configuration of our Linux server to server as the VOIP controller, the hardware needed for phone systems to **continue to work during power failure**, a **backup Plain Old Telephone Service (POTS) line** in case of internet downtime, **two numbered lines** (850-425-2600 and 850-425-2620), and **2000 minutes of long distance**.

These two charts describe the initial equipment and labor costs as well as the monthly recurring charges we would incur.

Initial Expenditure Cost

Description	Cost
LinuxSys Equipment	\$3,211.01
LinuxSys Labor	\$1,140.00
Total	\$4,351.01

Monthly Recurring Cost

Description	Monthly Charge
LinuxSys VOIP Service (Local and 2000 Minutes Long Distance)	\$165.00
Embarq Phone Service (1 POTS Line for E911 and Redundancy)	\$33.50
Conference Calls Unlimited	\$195.00
Comcast Cable Internet Service	\$104.90
Total	\$498.40

Proposed Solution 2 Expenditures (Parallel Synergistic Consulting - Cisco Option)

Parallel Synergistic Consulting, Inc. is a local VOIP provider in Tallahassee, FL. Melissa Raulston has previously worked with Sidney Watts at PSC is confident that a competitively-priced solution can be found. Sydney offers two solutions to consider: 1) a Cisco-branded solution that works in conjunction with TechSoup and sold at a substantial discount and 2) a less feature-rich Linksys-branded solution that does not have a discount through TechSoup.

This solution would offer **12 VOIP phones**, Cisco VOIP server hardware, hardware needed for phone systems to **continue to work during power failure**, a **backup Plain Old Telephone Service (POTS) line** in case of internet downtime, **two numbered lines** (850-425-2600 and 850-425-2620), and **unlimited long distance**.

These two charts describe the initial equipment and labor costs as well as the monthly recurring charges we would incur.

Initial Expenditure Cost

Description	Cost
Parallel Synergistic Equipment	\$1,140.00
Parallel Synergistic Labor	\$1,680.00
Total	\$2,820.00

Monthly Recurring Cost

Description	Monthly Charge
Parallel Synergistic VOIP Service (Local and Unlimited Long Distance)	\$140.00
Embarq Phone Service	\$33.50
Conference Calls Unlimited	\$195.00
Comcast Internet Service	\$104.90
Total	\$473.40

Proposed Solution 3 Expenditures (Parallel Synergistic Consulting - LinkSys Option)

This is the second solution that PSC can provide. This is the other option to consider if we cannot confirm a TechSoup discount.

This solution would offer **12 VOIP phones**, LinkSys VOIP server hardware, hardware needed for phone systems to **continue to work during power failure**, a **backup Plain Old Telephone Service (POTS) line** in case of internet downtime, **two numbered lines** (850-425-2600 and 850-425-2620), and **unlimited long distance**.

These two charts describe the initial equipment and labor costs as well as the monthly recurring charges we would incur.

Initial Expenditure Cost

Description	Cost
Parallel Synergistic Equipment	\$1,140.00
Parallel Synergistic Labor	\$1,680.00
Total	\$2,820.00

Monthly Recurring Cost

Description	Monthly Charge
Parallel Synergistic VOIP Service (Local and Unlimited Long Distance)	\$140.00
Embarq Phone Service	\$33.50
Conference Calls Unlimited	\$195.00
Comcast Internet Service	\$104.90
Total	\$473.40

Budget Projections

A VOIP System Will Save Money Over Time

The chart below shows the current projections for costs incurred while considering local and long distance phone service, internet, and conference calling abilities. Highlighted are the

	Current	Cumulative Total (Current)	LinuxSys	Cumulative Total (LinuxSys)	PSC (Cisco)	Cumulative Total (PSC Cisco)	PSC (LinkSys)	Cumulative Total (PSC LinkSys)
Month 1	\$700.32	\$700.32	\$4,871.31	\$4,871.31	\$2,960.00	\$2,960.00	\$4,095.00	\$4,095.00
Month 2	\$700.32	\$1,400.64	\$498.40	\$5,369.71	\$473.40	\$3,433.40	\$473.40	\$4,568.40
Month 3	\$700.32	\$2,100.96	\$498.40	\$5,868.11	\$473.40	\$3,906.80	\$473.40	\$5,041.80
Month 4	\$700.32	\$2,801.28	\$498.40	\$6,366.51	\$473.40	\$4,380.20	\$473.40	\$5,515.20
Month 5	\$700.32	\$3,501.60	\$498.40	\$6,864.91	\$473.40	\$4,853.60	\$473.40	\$5,988.60
Month 6	\$700.32	\$4,201.92	\$498.40	\$7,363.31	\$473.40	\$5,327.00	\$473.40	\$6,462.00
Month 7	\$700.32	\$4,902.24	\$498.40	\$7,861.71	\$473.40	\$5,800.40	\$473.40	\$6,935.40
Month 8	\$700.32	\$5,602.56	\$498.40	\$8,360.11	\$473.40	\$6,273.80	\$473.40	\$7,408.80
Month 9	\$700.32	\$6,302.88	\$498.40	\$8,858.51	\$473.40	\$6,747.20	\$473.40	\$7,882.20
Month 10	\$700.32	\$7,003.20	\$498.40	\$9,356.91	\$473.40	\$7,220.60	\$473.40	\$8,355.60
Month 11	\$700.32	\$7,703.52	\$498.40	\$9,855.31	\$473.40	\$7,694.00	\$473.40	\$8,829.00
Month 12	\$700.32	\$8,403.84	\$498.40	\$10,353.71	\$473.40	\$8,167.40	\$473.40	\$9,302.40
Month 13	\$700.32	\$9,104.16	\$498.40	\$10,852.11	\$473.40	\$8,640.80	\$473.40	\$9,775.80
Month 14	\$700.32	\$9,804.48	\$498.40	\$11,350.51	\$473.40	\$9,114.20	\$473.40	\$10,249.20

Budget Projections (cont.)

