

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS  
AGENDA ITEM SUMMARY**

**Meeting Date:** October 16, 2012

☐ Consent

☒ Regular

☐ Public Hearing

☐ Workshop

**Department:**

**Submitted by:** Information Systems Services

**Submitted for:** County Administration

**I. EXECUTIVE BRIEF**

**Motion and Title:** **Staff recommends motion to:** Authorize staff to proceed with planning a \$10 million, three-year project to replace the County's 80 separate telephone systems, currently serving more than 350 County locations and 10,000 users as well as multiple Customer Call Centers, with a single, modern, Unified Communications System.

**Summary:** Many of the County's existing telephone systems are now over 20-years old and are expensive to maintain. In addition, many of these systems are no longer supported by the manufacturers, making it difficult to obtain parts. The proposed Unified Communications System, which uses the Voice over Internet Protocol (VoIP) technology, will leverage the County's robust data network resulting in cost savings from disconnecting AT&T voice circuits. This aspect of the project alone will result in a direct savings of approximately \$2.5 million annually. The new system will also provide enhanced technical features and functionality, far beyond those provided by our current system, enabling the Board Departments and Constitutional Officers to better serve the public. Countywide (PFK)

**Background and Justification:** The majority of Palm Beach County's existing telephone systems are based on older hardware and software technology that does not offer the capabilities of a modern Voice over Internet Protocol (VoIP) system. These legacy systems are also costly to operate and maintain. A VoIP telephone system will leverage the County's extensive private fiber-optic network, reduce our reliance on AT&T services and thereby significantly decrease the County's telephony costs. Modern unified communications systems also offer features, e.g., single number dialing, instant messaging and video conferencing from the desktop, which are not available with older PBX-based systems. Most importantly, the new system will provide County Agencies and Constitutional Officers who directly interact with the public, the ability to take advantage of numerous technical enhancements.

A bond resolution authorizing the issuance of bonds to finance the project and a budget amendment establishing the capital project will be submitted to the Board of County Commissioners under separate agenda items during calendar year 2013. This capital project will provide a long-term asset and will generate savings throughout the life of the new system in comparison to the costs of operating the County's existing phone systems. The first debt service payment will be budgeted in FY 2014.

**Attachments:**

1. VoIP Project Summary (3 copies)
2. County Unified Communications Project Presentation (3 copies)

Recommended by: \_\_\_\_\_

*Steve Bordelon*

10-4-2012

Department Director

Date

Approved by: \_\_\_\_\_

*Chau*

10/9/12

County Administrator

Date

### A. Five Year Summary of Fiscal Impact

## B. Recommended Sources of Funds / Summary of Fiscal Impact

### C. Department Fiscal Review:

**A. OFMB Fiscal and/or Contract Dev. & Control Comments:**

**B. Legal Sufficiency:**

**C: Other Department Review:**

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# *Unified Communications Project Summary*

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*Voice over Internet Protocol  
Telephone System*



**Palm Beach County**

*Department of Information System Services*

*Network Services Division*

## **Project Summary and Objectives**

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### **Summary**

Palm Beach County's existing telecommunications system is based on older, legacy hardware and software technology that does not offer the capabilities of a modern Voice over Internet Protocol (VoIP) system, and is costly to operate and maintain. A VoIP telephone system can leverage the County's extensive private fiber network, reduce our reliance on AT&T services and thereby significantly decrease the County's telephony costs. Modern unified communications systems also offer features, e.g., single number dialing, presence awareness and video conferencing from the desktop, which are not available with older PBX-based systems.

### **Objectives**

Information System Services seeks to implement a telephone system replacement that achieves the following key objectives:

- provides a Voice over Internet Protocol (VoIP) solution that meets current requirements with capabilities for future applications;
- can be configured and installed without interruption to current business operations and systems;
- is compatible with the Palm Beach County's network infrastructure;
- is built to be fully redundant within a large geographic area;
- supports the Simplified North American Numbering Plan;
- provides high quality voice with negligible voice latency;
- includes telephones that provide 1GB full duplex network pass through;
- has integrated voice mail services;
- supports 911/emergency call-out;
- includes IVR capabilities or readily configurable to connect to a third party IVR;
- includes paging capabilities or readily configurable to connect to a third party paging system;
- includes enhanced ACD services with skill set-based call routing and robust reporting capability;
- provides a flexible teleconferencing bridge;
- allows for multiple attendant consoles for individual departments and agencies; and
- is cost effective to maintain and operate by ISS Network Services staff.

### **Project Budget and Expected Annual Savings**

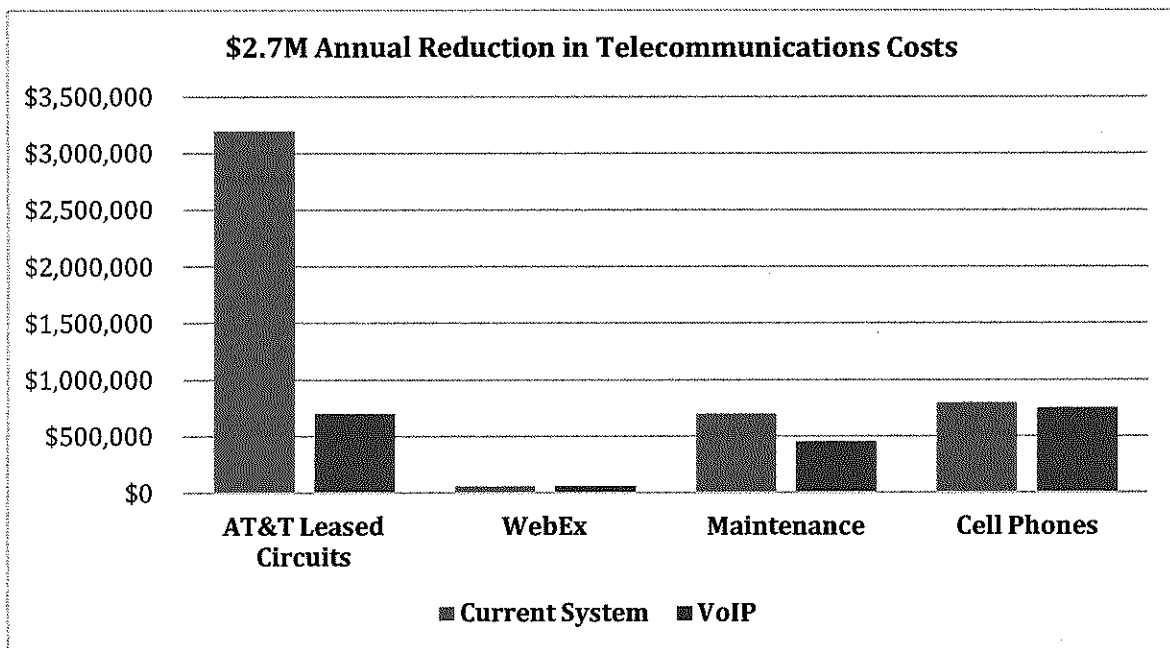
Information System Services maintains approximately 10,000 telephones in 376 different locations used by all departments and constitutional offices comprising Palm Beach County government. The County's existing telephone system is comprised of 80 private branch exchange (PBX) telephone systems. These PBXs are of various ages and manufacture, and some are more than 20 years old. This mixed environment requires substantial technical skills and is costly to maintain. By comparison, the planned VoIP telephone system will consist of only two high availability telephone PBXs. Since VoIP telephone traffic will be transported over the County's existing data network, building cabling costs will be significantly reduced.

A preliminary estimate of costs to implement a countywide VoIP system is approximately \$10 million dollars as summarized in the following table.

ITEM	2013	2014	TOTAL
Network Equipment	\$800,000	\$1,000,000	\$1,800,000
VoIP HW/ SW	\$2,700,000	\$3,700,000	\$6,400,000
Maintenance (5-years)	\$175,000	225,000	\$400,000
Installation Support	\$600,000	\$800,00	\$1,400,000
Total Project Cost			\$10,000,000

This project is to be funded through short-term debt with the principal and interest repayments to be paid in the initial years by general government and in the post-system implementation years by the savings generated from the transition to the VoIP technology. This financing strategy also takes advantage of historically low financing costs and the County's excellent credit ratings.

*The VoIP telephone system will be deployed to all supported customers over a 3-year period. The full annual cost savings of \$2.7 million will be realized beginning in 2015. Components of the projected cost savings are shown in the following chart with the largest portion of these savings - more than \$2 million annually, to be realized from disconnecting leased voice circuits.*



### Procurement Process

On June 25, 2012, ISS and Purchasing met to discuss the recommended method of procurement. ISS will create a detailed matrix that clearly defines the County's requirements and will then conduct a formal evaluation of the relevant manufacturers offerings. Once ISS has determined, based on the evaluation criteria, the manufacturer that best meets the needs of Palm Beach County, ISS will work directly with Purchasing to determine the best procurement methodology, to include leveraging existing, competitively awarded contracts. Since ISS is already familiar with VoIP services, the use of an RFI process is not recommended.

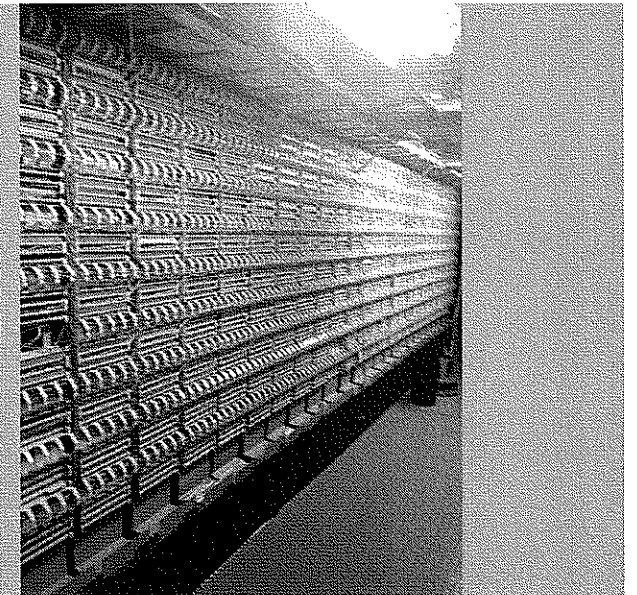
### Evaluation Process

Product demonstrations will be scheduled with the industry leading vendors for VoIP solutions. Each vendor will provide support staff and a "lab-in-the-box" for more extensive product evaluation. The leading VoIP solutions will be evaluated for one week based on ease of implementation, integration into the County's data network, operational tools and end user features. Formal criteria and rating guidelines will be used to evaluate the various products. Additionally, ISS will identify other large governmental agencies which utilize the various competing VoIP products and services. We will contact the appropriate personnel in these agencies to request information about their level of satisfaction with their project implementation and subsequent performance of their selected systems, as well as information about the terms and conditions of their VoIP contracts.



# County Telephone Systems

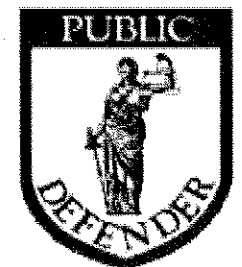
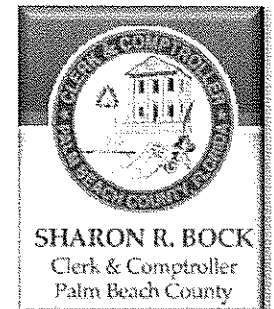
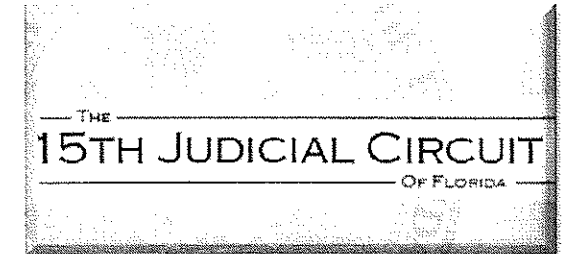
## Status and Recommendation



**September 2012**



# ORGANIZATIONS SERVED





# NUMBERS

- **Approximately 10,000 telephones**



- **367 Locations**



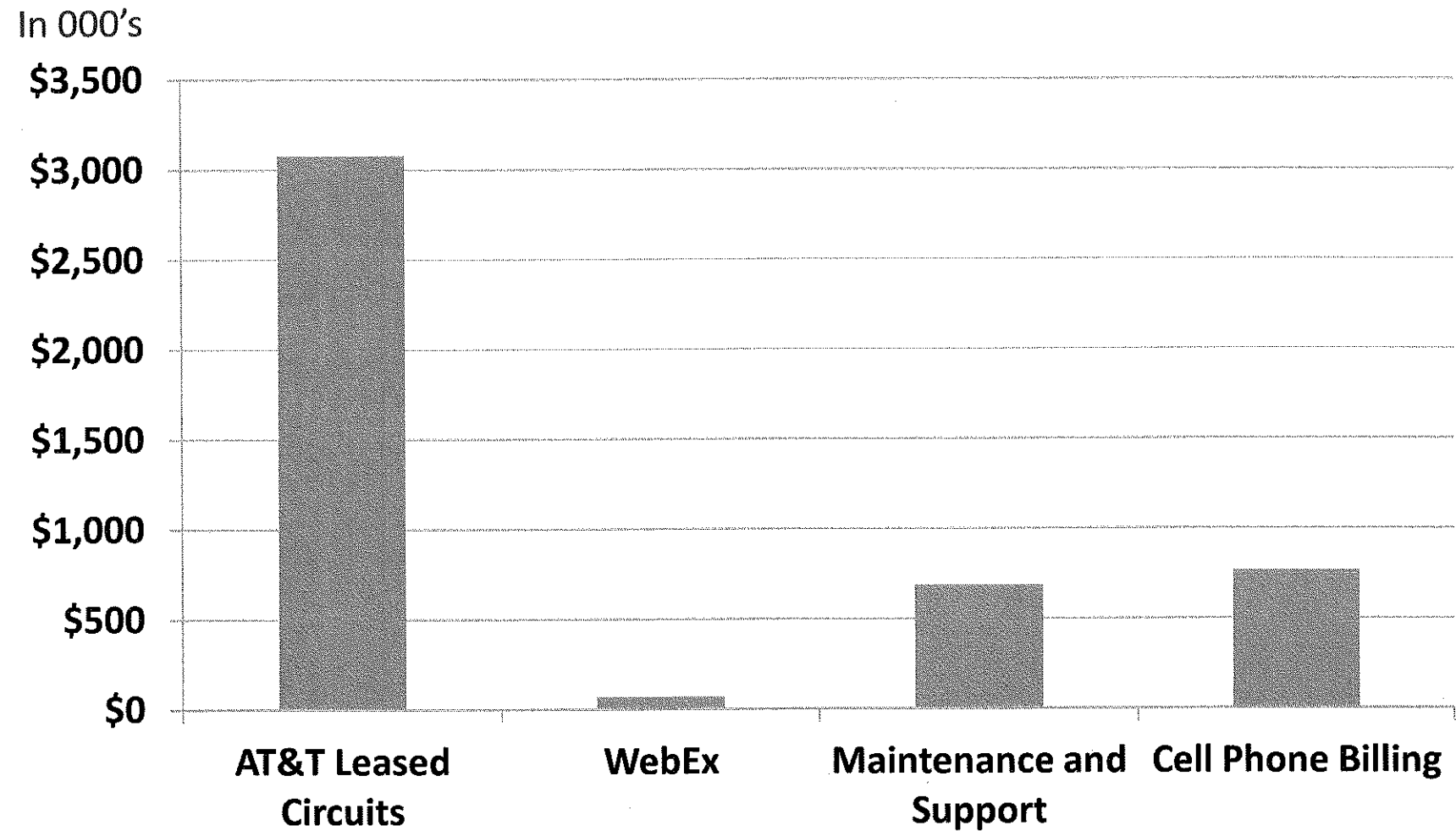
- **80 Separate Phone Systems**

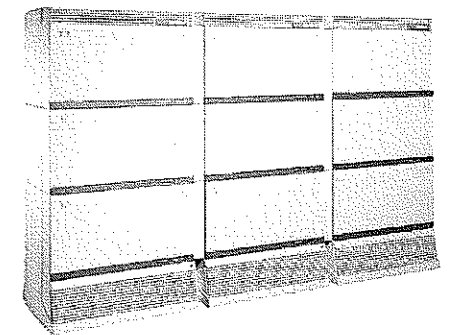
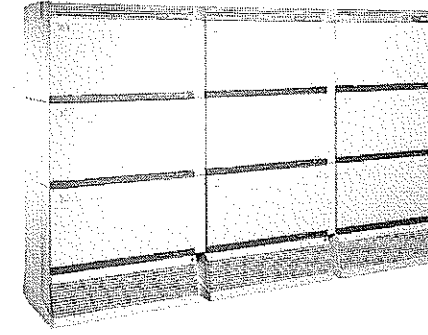
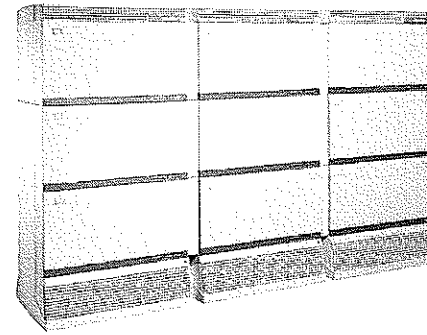
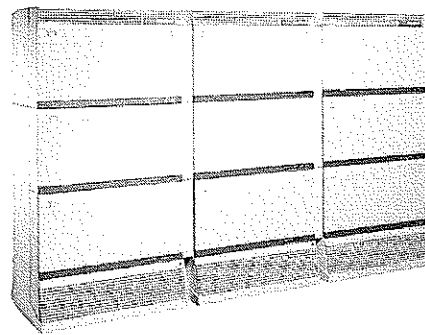
- **Over \$3M in AT&T Cost**



- **\$4.7M Annual Cost**

# \$ 4.6M BREAKDOWN

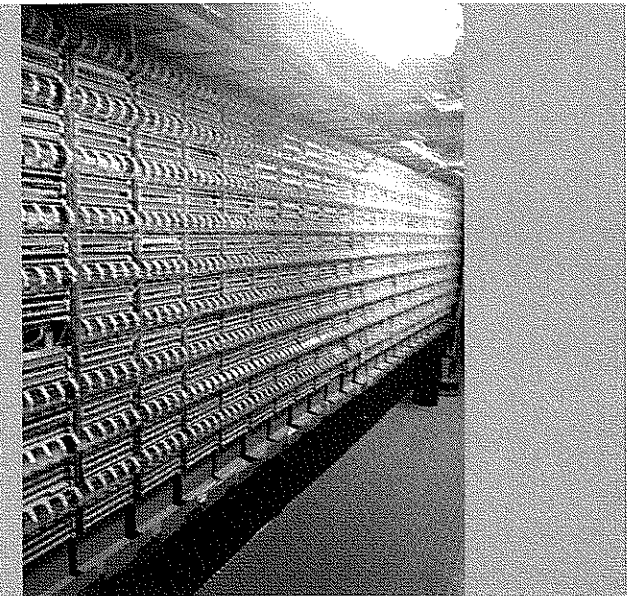




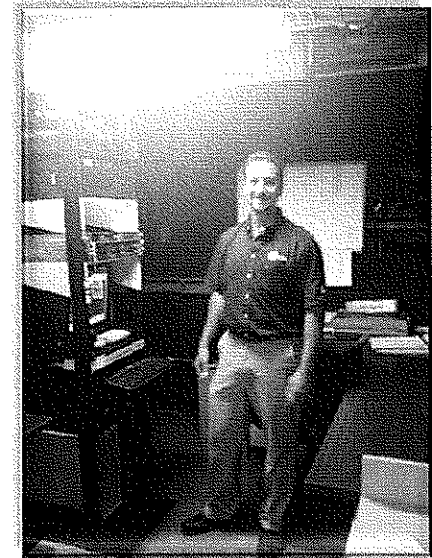
**Circa 1992**

**EXAMPLE**

**Main Court House  
\$1.7M Initial Cost**



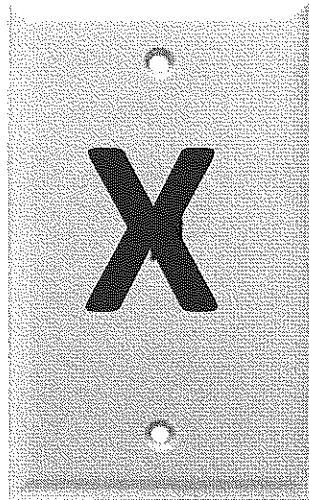
# Aging System / Obsolete Technology



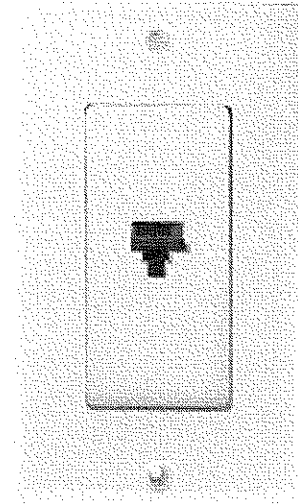
**Full Time AT&T Contractor**

# TECHNOLOGY SHIFT

**Telephone Wiring**



**Data Wiring**






# SAMPLE REPLACEMENT

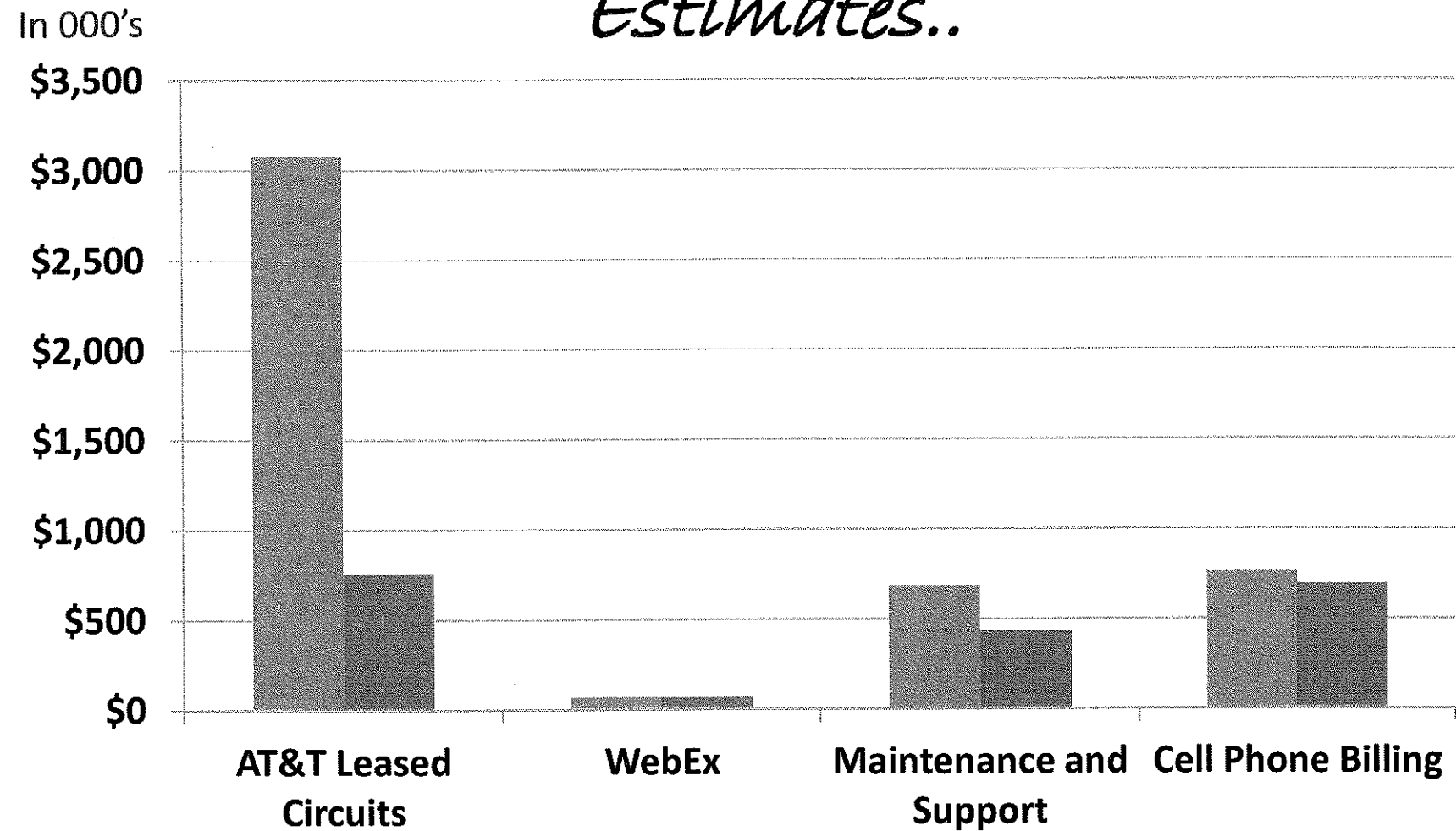


# NEW NUMBERS

- **Approximately 10,000 telephones**
- **367 Locations**
- **(80) 2 Phone Systems** (*Primary & Backup*)
- **(\$3.0M) \$0.75M in AT&T Costs**   
at&t
- **(\$4.6M) \$1.9M Total Annual Cost**

# \$2.7M Annual Reduction

*Estimates..*





# \$ 10M PROJECT

*Estimates..*

ITEM	2013	2014	TOTAL
Network Equipment	\$ 0.7M	\$ 1.0M	\$ 1.7M
VoIP HW/SW	\$ 2.7M	\$ 3.7M	\$ 6.4M
Maintenance	\$ 0.4M ( 5 years)		\$ 0.4M
Installation Support	\$ 0.6M	\$ 0.8M	\$ 1.4M

# \$ 10M PAYBACK PERIOD

**Assuming \$2.7M Annual Savings..**

2015	2016	2017	2018
\$2.7M	\$5.4M	\$7.7M	\$10.4M
		(\$0.4M Required Maintenance)	