

Telecommunications Executive Summary:

LSJ Costs

We have reached out to several internet service providers for quotes of converged IP data and telephony services and have determined that there are no offerings for converged services at this time. In the near term, there will remain a dependency on the underwater fiber cable for telephone service. Fiber optics provides 3.0Gbps bandwidth and will easily support any services delivered to Caprita Point. While it is currently in a non-functioning state, the following provides itemized costs for its inspection and repair; as well as infrastructure upgrades required to facilitate the laundry room construction currently in progress on LSJ. A new telephony system is required for LSJ in order to replace the Nortel system struck by lightning earlier this year.

1. Fiber Optic Cable Needs:
 - a. Examine and Test existing under-sea cable \$4200.00
 - i. Completed: fiber determined to be in working order
 - b. Repair broken Splices; Terminate in new mechanical building \$14,800.00
 - i. Scheduled for week of 2/16/2009
 - c. Install cabling to migrate data services to mech building \$5500.00
2. New Equipment in Mechanical Building:
 - a. Terminate multimode fiber at all locations on LSJ \$29200.00
3. Install and configure new VoIP system and handsets for island
 - a. Upgrade network switches for redundant fiber infrastructure \$12210.00
 - b. Install and Configure VoIP phone solution \$36065.00
 - c. Travel Expense \$7931.28
 - i. This itemized list is provided as a complete package in the Val-Comm Quote.
4. **TOTAL:** **\$110,000.00**

Once complete, we will have a redundant data switched network with quality VoIP services. This model can easily be applied to most of our locations by upgrading data switches (optional in some instances) and purchasing the VoIP system hardware and handsets. The networking equipment to which we are upgrading provide firewalling, routing and other services making future migrations to converged telephone and data services seamless.

Following the quotes are proposals from Choice Communications and Sprint for increased internet bandwidth. Choice is offering two packages of uncommitted (best effort) bandwidth at 10Mbps and 20Mbps. The Choice solution would require power and development of a site capable of supporting a dish with approximately a two foot diameter. **Total MRC for 10Mbps is \$7500; \$12,500 for the 20Mbps service.**

Sprint would be increasing their existing capacity at Caprita point. The quotes are for guaranteed bandwidth of 3Mbps (double existing) and 6Mbps (quadruple existing) access speeds. Sprint would be installing 1 or 3 additional T1s and bonding them. Once the fiber work is completed, we will be capable of supporting this increase without additional costs. **Sprint's MRC for the 3Mbps is \$2800 and \$5500 for the 6Mbps.**

FTC Costs:

Financial Trust Corporation has an outdated telephony solution incapable of basic services including voice mail. I've retained a quote from ValComm to upgrade FTCs telephony infrastructure to the same equipment that would be installed at LSJ. There are small costs required to complete a wiring upgrade that was not finished at FTC.

1. Terminate existing Cat6 infrastructure and install wall faceplates.	\$2500.00
2. Install and configure Adtran VoIP Solution	\$23450.00
3. Travel and accommodations from NM (approximate)	\$7931.28
a. Items 2 and 3 are combined in the ValComm Quote for FTC.	
4. TOTAL	\$33881.28

Zorro:

Our existing infrastructure for voice and data at Zorro ranch is failing in several ways. The phone switch at Ranch Central has completely failed and it is becoming increasingly difficult to find replacement parts for the Vodavi phone switch at the Main House. Furthermore, call quality using the analog handsets that remain operational is extremely poor. Also, the existing copper wire that was buried to provide service to this phone switch has deteriorated such that it is unable to provide dial tone for all the phones in the house.

Val-Comms attached proposal includes upgrading the existing unlicensed link from Sandia Crest to the main house to a licensed link. The licensed link will provide additional security and a smaller beam width providing increased performance. The devices also provide the ability to bundle up to 4 T1s or a single Gigabit Ethernet port for future bandwidth increases or service changes.

Included in the price is the purchase of a new Netvanta VoIP phone switch. This device will provide us a versatile phone system using the wireless infrastructure within the ranch for telephone calls. Service to the Public Switched Telephone Network (PSTN) will be accomplished by connecting our existing voice connection to the Netvanta switch.

The **total** cost for the project is **\$88,000** and does not include the cost for wireless licenses. Wireless licenses are an initial cost of approximately \$3000 and requires a filing fee every decade (~\$500).

1. Install and configure new VoIP phone switch and handsets at main house	\$23,720.85
2. Install UPS equipment and Wireless coverage where services enter at HVAC	\$8,275.75
3. Install and configure wireless bridge and power conditioning at Ranch Central	\$8,801.10
4. Deliver telephone services to the Lodge	\$4,358.88
5. Upgrade equipment to support additional services and licensed link from SC	\$27,870.00
6. Labor	\$14,000.00