

Due Diligence: Ignorance is Not Bliss

What Are You Really Buying?

What investors don't know can be fatal in today's telecom market space. Stories have been published in the WSJ, Telephony, Upshot, and others that claim Investors are paying from 15% to 135% more than they should for telecom properties. Accurate inventory of hardware, software, physical plant and intellectual property is weak or non-existent. The key is to understand that hardware, software and the physical plant operate as a system – the interworkings of this system are what drive value. In many cases, technical due diligence is being done by personnel with little or no real experience in the technology of the property being evaluated. Specialists in technical consulting have been able to demonstrate that skilled technical due diligence can uncover hidden strengths and weaknesses in wired and wireless properties revealing Total Cost of Ownership (TCO) and exposing true risks and future value.

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In the late 1990s many M&A and Venture Capital firms (VCs) got caught up in the “irrational exuberance” of the times and invested in or purchased properties that had technology appeal with little or no real proof of the viability of the product or service. It was hard not to go into deals with a strategy of “get it before someone else does”. Intuition ruled and complete technical and financial due diligence was winked at. We were smug, confident and relied on trade publications, broker’s analysts plus the Big Five Accountants – it didn’t work. In fairness to everyone, investment decisions were made believing the boom would continue as emerging technologies came to market, one on top of another. Speed of closing the transaction was the priority of the day. Investors and consultants were under intense pressure to get the transaction closed without investigating every small detail. Too much due diligence could kill the transaction.

Evaluating wireline and wireless properties in today’s economic environment will require more focused financial and legal due diligence. Most important is the need to put additional emphasis on technical due diligence and who is doing it. Recent revelations about less than arms length due diligence by “full service” firms has everyone sensitive to the independence and accuracy of investment reports. Future technical due diligence will require gathering more important facts thru the ability to ask better, more detailed questions. This goal can be accomplished by using a combination of expert technical consultants and certified equipment appraisers. This begs the question, who will pay for this – buyer or seller? Arguments for either position can be emphatically made, but due diligence will be done before most investors will plunk down serious money in this weak market segment. Savvy investors believe the cost of due diligence must be considered a mission critical expenditure. In the current telecom investment environment there is no such thing as a “slam dunk”.

The following is an example of the technical due diligence process in action. The scenario is that a Cable TV franchise in a top market is up for sale. The seller presents the outside plant construction and maintenance records to show the systems reach and bandwidth capabilities. The seller would also present Certifications to show compliance with all FCC technical requirements. However, based solely on this data, the buyer still has no notion as to how well the network operates. Another level of investigation is required. The technical consultant must launch a more focused due diligence study on the CATV system. Comprehensive tests should be performed at critical locations to verify bandwidth capabilities, RF leakage, spectrum noise, etc. Applications testing from several user locations are required to affirm that analog and digital services can be properly provisioned and work to established Quality of Service (QoS) standards. Further analysis might require the verification of scalability of the system to 1 GHz bandwidth in the existing fiber/coax plant. Other technical considerations include:

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- ◆ Looking at the Franchise language for Rights of Way rules concerning future aerial or buried cable upgrades
- ◆ Looking at the Pole Attachment Agreements with the utility and telephone companies to verify the rates are in line with recent FCC rulings
- ◆ A detailed analysis of the equipment in place.

This last detail has two aspects. The first is the fair market value, which must be conducted by an approved appraiser. However, intertwined in this assessment are considerations such as:

- ◆ The supportability of the equipment
- ◆ The vendor's specific technology roadmap to estimate future revenue streams where none exist today
- ◆ How the individual technology components mesh into a working system.

The list of considerations can go on for several more pages. The point is buying now and worrying about these nit picky details later has already cost existing investors orders of magnitudes more money than the technical consulting expenses suggested above.

Let's take a look at one additional example - the technical evaluation of an existing operating telephone company's central office equipment. Hiring an independent equipment appraiser to determine the value of all the switching and transmission equipment is one of the first steps that should be taken, and will suffice if the CO is going to be sold for the component parts. However, if the return on investment is based on the Central Office as an operating system, then additional analysis is required. Details such as maintenance records and trouble history, software and hardware revisions, and the efficiency of the network all contribute to the system value. This evaluation of the current state of technology is necessary in order to project future capital requirements for growth in market share, revenues and profits. In today's telecom market we suggest a few unusual technical due diligence tests to demonstrate reliability and survivability:

- ◆ Kill the commercial power and see if the office automatically goes to battery backup
- ◆ How long does it take the remote Network Operations Center (NOC) to invoke emergency procedures?
- ◆ Verify that all services are working under these emergency conditions and see if new services can be provisioned without effecting traffic load rebalancing or priority services operation

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Harsh testing measures? Better to find out now how well the office reacts in an extreme maintenance condition rather than after the deal is closed. Governmental authorities are requiring a great deal from mission critical service providers in these troubled times. Other technical issues that might be investigated are:

- ◆ Characterization of the existing fiber cable to verify support of 10Gbps+ speeds and multiple wavelengths using DWDM.
- ◆ New (and expensive) E-911 rules are in effect so verification of customer record accuracy should be done “sooner rather than later”.

Failure to complete the technical due diligence examples mentioned above can have devastating, long-term financial consequences.

Total Cost of Ownership (TCO) and Return on Investment (ROI) are two very important factors for Investors and in M&A firms. Proper technical due diligence can demonstrate dramatic swings (positive and negative) in the end results of these factors. TCO should take in all types of costs besides the vendor’s price for hardware and software. CAPEX is often only a small part of the total picture. Consider W-LANs as a proof point. In existing buildings copper wiring may have to be modified (horizontally and vertically) to meet the LAN needs of a multi-floor tenant. The cost of rewiring can far exceed the cost of a Wireless Local Area Network (W-LAN) implementation. Spending any money to improve leased quarters does not prove in economically or logically in the short or medium term. W-LANs prove that “you can take it with you”.

Additionally, we must look at some of tangible and intangible cost issues before we deploy the W-LAN system. W-LAN hardware is more expensive and that IEEE 802.11 standards compliance doesn’t guarantee vendor interoperability. Antenna coverage can be less than perfect and a building’s internal structures and wiring can cause noise and interference in places not covered in a site’s pre-construction spectrum analysis. Other W-LAN system challenges include user training, productivity and IT administration. In this example the W-LAN TCO is 16% less than an equivalent wired LAN system.

However, a lower TCO does not automatically translate into a clear ROI. Capital costs could be 12% of the total while end-user operational costs came in at 49%. Administration OPEX seems to be a more dominating cost factor than CAPEX so the “soft dollar” assumptions about W-LAN convenience and flexibility outweigh the possibility of reliability and security problems. We might have to put a dollar value on certain “mission critical” applications and customer interactions and recalculate TCO. We have found that TCO and real ROI are difficult to quantify due to subjective time sensitive scenarios. More detailed technical due diligence in the above example can narrow the list of

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intangibles to reasonable numbers and improve the “hard dollar/soft dollar” calculations to provide more economic faith in the final implementation decision. Real ROI, in our example, is not about a quick payoff of CAPEX but emphasizes profits or revenues while leveraging ongoing technology benefits to users and their clients.

Right now spending and growth are not moving very quickly in the telecom market. Some consultants believe that the telecom market has become “decoupled” from the regular economy and has developed its own deflationary economic fundamentals. Politicians and regulators have now begun to clamor for more spending on broadband networks for the masses. The FCC and Congress are asking for a National Information Infrastructure (NII) to enhance “Homeland Security”. In this highly volatile atmosphere, how can we find mergers, acquisitions or investments that can produce realistic ROIs? Laser-focused technical due diligence using best-in-class methodologies can uncover those investments and acquisitions that make economic sense. There are no “packaged” answers or approaches that are viable in an emerging technology environment. Who knows the precise date when circuit switched services will all migrate to packet networks? When will the QoS standards for interoperable multimedia packet networks be solidified? The capabilities exist within certain firms to help fine tune the technical due diligence check lists required to flesh out reasonable strategies to recognize the current and future value of a wireless or wireline property. Yet tools and checklists can’t substitute for hands-on experience when it comes to the ability to uncover risks and provide a detailed market analysis. The optimum source of this expertise rests in the few, methods-based firms who maintain the experience and technology expertise to sort the chaff from the wheat.

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About Glow Networks

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