The McLean Group

Technology & Telecommunications

WHAT IS MY EMBEDDED SOFTWARE COMPANY WORTH?

A discussion about the top drivers to value when selling a small software company

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A discussion about the top drivers to value when selling a small software company

As a mergers and acquisitions investment banker working with embedded software companies, I am most commonly asked, "How much will my company be worth when I sell it?" While there is probably no question more important to the entrepreneur, the rationale underlying actual prices paid for small-to-medium-sized private software companies most often is a mystery. This article will address an acquisition's common value drivers in an effort to demystify the process for owners.

Let's consider a hypothetical embedded software company that we will call "Embedded Software Company," or ESC. ESC's owners are considering selling the business.

- ESC has been in business for 7 years and is privately-held, primarily by the CEO. The CEO would like to explore selling the business and starting a new venture. However, she is not sure what the company is worth and whether it would even sell.
- ESC provides an innovative voice quality product that typically is used in such VoIP devices as IP phones, mobile phones, and other IP access devices.
- Key customers include IP infrastructure companies such as Cisco and Avaya and mobile device manufacturers like Nokia, Motorola and Samsung.
- ESC has been awarded several patents directly pertaining to its voice software solution.
- ESC partners with such semiconductor firms as ARM, Texas Instruments, and Freescale and has created software versions for Android and embedded Linux.
- Revenues are a respectable $5 million annually with solid growth projected.
- Services initially generated almost 100% of revenue, but now ESC is a "product company" and services only represent 10%-20% of revenue.
- Cash flow, however, is low given large R&D and marketing costs. The current year's EBITDA is $250,000.

ESC has a lot going for it—key customer wins, a solid revenue base, patent portfolio, and key industry partners. ESC is probably not yet profitable enough to be purchased for its cash flow, but it could certainly be valuable for its intellectual property (IP) and its customer wins. The question remains, if the owners decide to sell ESC, what is its real value? Does it sell for a multiple of EBITDA or some other metric?

Let's walk through some of the common questions ESC's CEO might ask concerning her company's value.

IS THERE A LISTING PRICE?

ESC's CEO might first ask, "When I sell my company, how do I determine the listing price?" The short answer is she wouldn't. And she shouldn't. This at first might seem counterintuitive. If she were selling her house, for example, she and her real estate agent would pick a price at which to list the house on the market, with the expectation of receiving 90% to 110% of that price in a sale. But market values of homes, despite recent economic events, are well-established, with very transparent market data available nationwide. On the other hand, when ESC's CEO decides to sell her software company, she will find no pre-determined value formula because market data on sales of smaller, private companies is exceptionally difficult to find. Furthermore, while housing "comps" (location, bedrooms, baths, taxes, school districts) make it easy to gauge comparative values of similar and even different homes across the street or across the country, it is far more difficult to establish true comparisons to differentiate values among small, privately-held companies.

Simply put, in the final analysis, ESC will be worth whatever its most enthusiastic prospective buyer will be willing to pay for it. Even so, ESC's CEO and owners like her can plan ahead by developing a comprehensive understanding of the business characteristics potential buyers find most valuable.

WHY IS IT SO HARD TO DETERMINE WHAT A SMALLER SOFTWARE COMPANY IS WORTH?

There are a couple key reasons why the value of small software companies cannot easily be determined via some cookie-cutter formula. First, our ESC CEO might inquire about a formal valuation that can establish Fair Market Value (FMV). But Fair Market Value seldom turns out to be the price a seller realizes when selling her business. Make no mistake: an FMV appraisal should constitute a helpful data-point, but it nonetheless remains an accounting designation that holds no bearing on the competitive bidding process that will be leveraged when selling the company. FMV appraisals can be highly useful for a variety of good reasons, including goodwill impairment and employee stock ownerships plans (ESOPs), but they usually are not required when selling a company because the company's value is likely to be different to each potential bidder, because each potential bidder will use different means to calculate what the company is worth to him or her and the acquisition objectives of all bidders will vary, quite possibly widely.

Often, a company owner can obtain a reasonable idea of the company's worth by reviewing comparable transactions to estimate a range of possible acquisition prices. However, this can be very challenging in the case of small, private companies, especially ones being acquired by other private companies, as the purchase price and target's EBITDA seldom are reported. That forces business owners to review comparisons of public and larger private companies. Yet, comparing the EV/EBITDA multiple of a public company generating $1 billion revenue simply will not correlate to smaller companies like ESC that generate $5 million in revenue.

SELLING A COMPANY FOR ITS INTELLECTUAL PROPERTY

Many embedded software companies with which I have worked – like our hypothetical ESC example – sell products and professional services while viewing themselves as "product" companies. Small software product companies are valued differently than software consulting and contracting firms. In fact, the revenues generated by services small software product companies provide often pays the bills, keeps people employed and funds R&D. Our hypothetical ESC originally may have bootstrapped itself as a 100% services firm, and developed a product strategy over time. Or the firm may have received VC or angel funding to kick-start product development efforts while capitalizing on services as a means to increase revenues and retain customers.

For product-oriented software companies, technology and intellectual property (IP) is intended to serve as the company's growth engine and primary value driver in an acquisition. For larger, profitable software companies, fairly straightforward acquisition price estimates can be made based upon EBITDA multiples. Small, unprofitable or barely profitable companies in strong growth stages likely would be acquired primarily for their IP. But what that IP is really worth? Once again, we must determine what value might be to specific, multiple prospective buyers.

KEY VALUE DRIVERS FOR LARGER SOFTWARE COMPANIES

For larger, more profitable software companies, financial performance typically drives the ultimate purchase price. Prospective buyers considering such mid-to-large sized companies tend to value them based on the following metrics:

- **Earnings (EBITDA):** Trailing 12 months
- **Growth rate of earnings (EBITDA)**: Both trailing and future projections. Buyers like to see steady growth for the last 3-4 years along with believable, defensible projections indicating that steady growth will continue.
- **Protection of earnings from a variety of threats**: The company is in a growing market, barriers to entry for new competitors are high, and the company is well-positioned to respond to competitive pressures. This may be evidenced by steadily increasing (or at least steady) gross margins. The company may have a patent portfolio that protects key IP. The company also should be protected from over-reliance on one or two key personnel or customers.
- **Quality of key personnel**, especially engineers who would remain with the company following the acquisition.

Larger companies often are acquired as business with the expectation that they directly will drive buyers' earnings. In such instances, buyer due diligence will focus on ensuring that earnings streams are protected from the above-mentioned threats.

KEY VALUE DRIVERS FOR SMALLER SOFTWARE COMPANIES

At $5 million in revenues, ESC may be categorized as a "lower middle market" (or small- to medium-sized) company. While ESC's cash flow is low, the IP and customer relationships it has developed may prove highly valuable to the right buyer. Since ESC has only $250,000 in EBITDA, does that mean it is only worth a standard multiple of that $250,000 (for example, 5x, or a $1.25 million purchase price)? No, not necessarily!

Bidder estimate what a prospective acquisition may be worth in a number of ways, including:

- **Trailing earnings (EBITDA).** Yes, buyers will calculate this number no matter what and may want to value a bid using this approach. Sellers should resist allowing the use of EBITDA as a metric in negotiations, because it usually results in a lower value than that realized via other methods.
- **Present value of future earnings**. While a seller can command a higher value by relying upon future growth projections rather than simply past earnings, the higher the projected growth, the more convincingly our seller will need to justify it. Embedded software firms, especially as they mature, may forecast royalties that constitute a significant percentage of revenues. These frequently are

negotiated with silicon vendor partners and bundled into the price of the chip. Royalties present a critical opportunity for sellers seeking to demonstrate a "growth annuity." On the other hand, buyers will discount these, knowing full well that few royalty contracts are guaranteed.

- **Cost for a buyer to create the technology**. Let's assume that ESC invested $20 million and the efforts of 10 developers working full-time for 2 years to create its technology. Its implicit cost may provide a starting point for initial value. However, the buyer's lost opportunity costs must be also considered in addition to the development costs. Meaning, what business or programs might have been lost if 10 engineers' time was sacrificed for 2 years for the program? What business might have been won by now had the buyer acquired the startup instead?

- **What would it cost the buyer to buy an off-the-shelf solution from another company?** The buyer may make this calculation to create a "low-ball" value. ESC should seek to maximize seller value by offering some capability buyers cannot easily obtain simply by buying a solution off the street.

- **What is it worth to acquire key customers?** Oftentimes, the seller may have key customers that the buyer desires to acquire. The value to the buyer of acquiring these "ins" to key customers can often be significant, even while the deals may be small and the programs may be niche.

- **What is it worth to block competition?** Research in Motion's (RIM) recent acquisition of The Astonishing Tribe (TAT) provides a good example of a transaction undertaken to block RIM's competition. TAT had developed user interface software for Google's Android platform, which many viewed as a superior to Blackberry's own. RIM obviously believed it was worth $119 million to acquire TAT to neutralize competition from phone manufacturers using the Android platform.

- **Other transactions:** Other transactions represent data-points that indicate ranges of prices that a buyer may offer, even if those deals were larger companies and/or not exactly operating in the same space. Buyers also use these numbers to understand what other buyers are paying for similar transactions.

HOW DOES THE BUYER VERIFY THAT THE SELLER'S IP REALLY WORKS?

For a smaller product company to be acquired for its technology rather than its cash flow, the IP must be proven to be at a point where it is valuable. If ESC attempts a sale before its IP has been proven, it will be unlikely to attract bids within the desired price range.

In general, buyers of IP companies generally want to ensure that the technology is proven and can be leveraged by the parent company to drive profits. Buyers often look for companies that appear to be on the right track, but have limited bay general lack of resources in such areas as sales and marketing.

Prospective buyers can assess whether or not the target's IP is proven, and if so, what it is worth, in any number of ways:

- **Revenue and customers**. Even though earnings may be low or negative, winning new business is often the best proof that a product works.

- **Key customer wins**. Larger strategic customers are more demanding, harder to win, and can help iron out software bugs. ESC's record with the likes of Cisco and Nokia certainly would look promising. On the other hand, sellers that have only won deals with other startups will raise red flags for a buyer.
- **Key partnerships**. As with key customers, key partnerships with silicon vendors (as one example) are desirable. Embedded software firms that enjoy key relationships with such chip vendors and IP licensees as ARM, TI, Intel, Qualcomm and others demonstrate credibility while also increasing the pool of possible buyers and customers.

- **Demo**. Anyone who has performed emerging software product sales demonstrations or even demonstrations of mature products knows that things rarely go perfectly. However, strategic buyers who understand the technology will put high importance on seeing for themselves that the product really works.

- **Patent protection**. Patents awarded offer evidence that the seller's IP is real and can be legally protected.

- **Other subjective inputs** can come from a variety of sources. For example, it helps to have a current, fresh-looking website. Industry awards improve credibility, too. Buyers also may ask customers and partner's questions about the Seller's company's performance as part of their due diligence.

THE BEST WAY TO DETERMINE REAL MARKET VALUE

Ultimately, there is no standard formula to determine the "real" market value of a smaller embedded software company in the event of a likely acquisition. The best way for ESC's owners to get the most value at time of sale is to receive *multiple competing bids*, ideally at the same time. Every potential buyer has different holes is trying to fill, different views on competitors, and different predictions concerning the market's direction. In the absence of a formula to determine the offering price, having competing buyers is the best way to maximize it. A good investment banker who understands the target market can manage the process to optimize value and terms when selling the business.

About the Author

Brent Lorenz, a Vice President in The McLean Group's headquarters office, has more than 15 years' experience driving business development, sales and product management for such high technology companies as Texas Instruments, IBM and venture capital-funded startups. He focuses on M&A for embedded software firms and semiconductor manufacturers and specializes in smart phone, mobile consumer device, and enterprise telephony markets. Specifically, he targets firms developing products centered around technologies such as VoIP, video software, DSP software, code development tools, graphical user interface (GUI) tools, and device management software.

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THE MCLEAN GROUP TECHNOLOGY & TELECOMMUNICATIONS SERVICES PRACTICE

The Washington, DC area incubates a large number of technology companies serving the federal government, telecommunications and Internet industries. Many government agencies and corporations produce a steady stream of entrepreneurs who establish and grow successful middle market businesses in the region.

We have served these regional technology firms among others nationally and worldwide. Whether product- or service-oriented, our research, analysis, valuation and investment banking professionals have experience with a broad array of technology companies. We are well-equipped to help our clients build value and close successful transactions.

Selected Recent Technology & Telecommunications Engagements

- Memphis Networx acquired by Zayo Bandwidth — The McLean Group
- Arrowhead Global Solutions, Inc. acquired by CapRock Communications — The McLean Group
- eXMeritus (eXMeritus Software Federal Systems, Inc.) acquired by Boeing — The McLean Group
- Defense Systems, Inc. acquired by WFI Wireless Facilities, Inc. — The McLean Group
- CAMCOM acquired by MasTec — The McLean Group
- RF Code — Business Valuation — The McLean Group
- cybertrust acquired by Verizon business — Fairness Opinion — The McLean Group
- Simply Wireless — Financial & Strategic Advisory — The McLean Group

THE MCLEAN GROUP OVERVIEW

The McLean Group is a national, middle market investment bank providing mergers & acquisitions (M&A), capital formation, market intelligence, business valuation, litigation support and exit planning services. Headquartered in the Washington, DC metropolitan region's technology, communications and government contracting corridor, the firm is among the top middle market investment banks in the nation.