# **CURTAIN CALL EXECUTIVE SERVICES**

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John Jenkins was the principal partner at Diamond Ventures, a firm that specializes in start-up investments. In 2003, recognizing a potential need in the market, Diamond Ventures had started a specialty human resources firm (Curtain Call Executive Services) that provided temporary employees for high level science and technology (so-called STEM) research positions. Curtain Call had grown faster than anyone had anticipated and had therefore attracted the interest of several external private equity firms. With a need for both growth capital and business expertise, Diamond ultimately decided in September 2011 to accept a \$7.5 million investment from Enhanced Equity Partners, a boutique firm based in Chicago.

John believed that the investment had been a great fit both financially and strategically; however, the structure of the investment created some complicated accounting issues. In fact, John had been trying for the last two months to determine the proper way to value the investment. The auditors were losing patience, as they still needed to close the books on 2011. With this in mind, John asked Lauryn Andrews, a local finance professor, to evaluate the deal structure and develop a valuation method, and thus the associated value, for each component of the investment.

# **Company Background**

Having been previously employed in the life sciences field, John Jenkins saw first-hand how the product development process worked. His other partners had similar experiences in the fields of technology and consumer goods. This combined experience made for a great fit, as the partners were able to leverage their expertise to create Curtain Call Executive Services.

Curtain Call was started with a handful of retired industry executives who wanted the freedom and time to pursue their own personal goals, yet still had an interest in staying involved professionally. The company had grown to over 7,500 "employees," with an average of over 25 years of experience and more than 65% with advanced degrees. So, the talent pool seemed to be available, but was there demand on the business side to sustain such a firm? The question was definitely yes, as Curtain Call has completed over 3,000 engagements in the areas of product research, development, and commercialization in the last decade, growing revenues to over \$33 million in 2011. In fact, Curtain Call has served over 70 percent of the largest, most innovative consumer product and life sciences companies.

#### The Investment

On September 30, 2011, Curtain Call, Inc. issued 1,918,060 shares of Series A Preferred Stock to Enhanced Equity Partners in exchange for \$7,500,006. Thus, the effective price per share was \$3.91. Based on the total number of shares outstanding (existing common shares plus the newly issued convertible preferred shares), Curtain Call was valued at \$58.8 million at the time of the investment,

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which represents a trailing twelve month (TTM) revenue multiple of 1.9058 (rounded to 1.91 for all future calculation estimates). See Table 1 for additional details on Curtain Call's financials.

Table 1: Financial Information

	Sep		Oct		Nov		Dec	
		2011		2011		2011		2011
Net Revenue	\$	2,800,379	\$	2,907,037	\$	3,264,021	\$	2,758,230
Revenue Multiplier		1.91		1.91		1.91		1.91
Revenue TTM	\$	30,876,925	\$	31,355,440	\$	32,282,416	\$	33,053,537
Revenue TTM Equity Valuation	\$	58,845,683	\$	59,888,890	\$	61,659,415	\$	63,132,256
Shares Outstanding*		15,050,047		15,050,047		15,050,047		15,050,047
Per Share Price	\$	3.91	\$	3.98	\$	4.10	\$	4.19
*Includes newly issued preferred stock								

Additionally, the Series A Preferred Stock (the "Series A") included the following key features as part of the official legal contract:

## **Liquidation Rights**

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company, including a deemed liquidation, (collectively Liquidation Events) the holders of Series A Preferred Stock are entitled, prior to and in preference to the Liquidation Event distribution rights of any Junior Securities. The amount payable shall be the greater of:

- (1) The aggregate liquidation value of Series A (described just below), or
- (2) Fair value of the equity shares (Class A common stock) into which the Series A Preferred stock is convertible into, as though such conversion had been effected immediately prior to the liquidation event.

Any change of control transaction will result in a deemed liquidation event.

### **Liquidation Value**

The Liquidation Value (as agreed upon by the parties and stated in the contract) is the greater of:

- (1) \$5.865 per share, or
- (2) Series A Original Issue Price (i.e., \$3.91) plus a dividend equal to an annual rate of 14.11% compounded quarterly (effectively 14.87% annualized).

Based on the 14.11% annual rate, upon the 60th month anniversary of the Series A original issue date, the Liquidation Value will equal \$7.82 per share. If the Series A holders have yet to convert, upon the 60<sup>th</sup> month they must determine whether to accept liquidation at \$7.82 per share or convert into Class A common stock.

The Liquidation Value represents the effective exercise price of the conversion option, which is similar to the conversion price of a convertible bond (only it is variable in this case). If the underlying value of the shares exceeds the liquidation value, the conversion option would be "in-the-money" and it would therefore be favorable to convert (see optional conversion rights below).

## **Optional Conversion Rights**

Optional Conversion: Series A Preferred stockholders have the right to convert Series A shares into common stock at any time after entering into this contract. Initially, i.e. before the Series A conversion price is subjected to any adjustments, the shares are convertible at a ratio of 1:1. The Series A conversion price would be adjusted downward, representing an economic benefit to the Series A shareholders, in the event that there is a sale of the company's common shares at a price lower than the Series A conversion price. Specifically, the Articles of Incorporation contains a provision for such a reduction in the conversion price in the event of a sale of common shares at a price less than the \$3.91 per share effective conversion price inherent in the 1:1 conversion ratio (subject to adjustment as discussed in the preceding paragraph).

Automatic Conversion Feature: All Series A Preferred stock shall automatically convert to common stock of the Company upon the closing of a Qualified Public Offering ("QPO"). A QPO has been defined as an event whereby the issue price shall not be lower than 67 % of the liquidation value. Therefore, the QPO cannot effectively occur at a price lower than \$3.91, which is the initial issue price of the Series A Preferred Stock.

#### **Investment Valuation**

In their discussion, John admitted to Lauryn that given the accounting difficulties, in hindsight he may have considered a different investment structure, for example, maybe simply straight debt or straight common stock. However, Accelerate Equity would likely have been reluctant to accept either of these since such firms generally desire the ability to both protect downside risk (i.e., fixed income component and/or priority) and participate in upside potential (i.e., common stock). Thus, while not optimal from an accounting perspective, this hybrid investment may have been the most strategic, and therefore best, approach.

#### **Debt Component**

While labeled preferred stock, the investment of \$7.5 million carries a fixed dividend that accrues through time to a maturity value of approximately \$15 million. Ignoring the conversion option, this security is essentially a zero coupon investment with a nominal rate of 14.11% compounded quarterly. However, the conversion feature is a key component and obviously carries some value with it. In fact, this feature is a "sweetener" that reduces the interest rate below what it otherwise would have been on a straight debt security. So, one question John had was: "what interest rate is embedded in the pure debt component of the Series A Preferred Stock?" Meaning, he wanted to know what rate would Curtain Call have had to pay on a straight debt security.

### **Option Component**

A critical component of the Series A Preferred Stock is the conversion option, which effectively gives Accelerated Equity the ability to convert the preferred stock into common stock on a 1:1 basis. John understood the basics of options, so he knew that there were particular inputs that he needed to assume or estimate in order to complete the valuation of this component. These included: (1) the underlying per share equity value (i.e., the stock price), (2) the conversion, or exercise, price, (3) the time to maturity for the option, (4) the volatility of the underlying equity, and (5) the risk-free interest rate.

John had a good estimate of the underlying equity value, as he knew that the deal had been done at a per share price of \$3.91. Further, he believed that the revenue multiple was a good valuation proxy,

at least in the short term. So, as revenue changed, he could easily determine any associated change in equity value, which can be seen in Table 1. John also had a good estimate of the implied volatility, as he was able to identify a good set of comparable firms that were publicly traded. As such, he believed 36% was a reasonable estimate for this input. The risk-free rate was also relatively straightforward, and John believed 1% (annual) was a valid estimate.

The two inputs that were more difficult for John to determine were the maturity and the exercise price. While the option maturity was fixed at five years, it is effectively an American style option since it can be exercised prior to maturity. So, John wasn't quite sure how to incorporate the possibility of exercise at different dates into the model. Moreover, John was really uncertain how to deal with the exercise price since it was not fixed. Specifically, the contract calls for a starting exercise price (or liquidation value) of \$5.865 per share; however, this value changed as the stated "dividend" was accrued to the fixed income component. This is really why John needed Lauryn's help.

In particular, John had heard of different approaches to valuing options, such as the Black and Scholes Model and the Binomial (or lattice) Model. However, he was unsure of the best approach given the characteristics of the Series A. Further, without a model, he was unable to provide a valuation for each component.

#### **Value Estimate**

While John was unable to determine the value of the debt and option components, he knew that in total the beginning value of the combined security had to be equivalent to the original investment of \$7.5 million. Further, he understood that this value would change each quarter (which is the relevant time increment to match the production of quarterly financial statements) as: (1) the fixed income component accrued dividends and (2) as the equity value changed, thereby impacting the option component. He was particularly interested in these values as of December 31, 2011, since that was the most pressing issue with the accountants. So, his primary request for Lauryn was to determine not only the best approach, but what the values were as of inception and as of year-end 2011.