



Valuation of AirThread Connections



Overview

- Situation: American Cable, a large player in the landline and internet industry, is looking to add wireless offerings to its list of services
- Complication: AirThread's investors are concerned with its future growth
- Question: Determine a likely estimate of the intrinsic value of AirThread's operating and non-operating costs
- Valuation:

AirThreads for ACC with Synergies	\$	11,093,598,227.32
AirThreads for ACC without Synergies	\$	5,080,331,662.44
AirThreads for ACC with Synergies using P/E multiples approach	\$	12,812,150,000.00



American Cable Communications

- As of 2007, American Cable Communications (ACC) was one of the largest cable operators in the US
- Provided cable systems through roughly 48.5 million homes and provided millions with video, internet, and landline telephone service
- Cable companies were only surviving if they had the size and the consumer base due to competition
- This led ACC to embark on a series of acquisitions spanning over \$15b, and their newest target was AirThread Connections



AirThread Connections

- AirThread was one of the largest regional wireless companies in the US, and had revenues of near \$4b in 2007 and had reach to around 80 million people

Why did investors want to sell?

- The wireless communications market was intensely competitive, and due to their inability to bundle their services with offerings such as landline telephones, internet access, and video services, they were put at an extreme competitive and costly disadvantage

Market Trends

- Rapid development in technology and demands influence large investments
- Companies expand and grow by acquiring economies of scale
- Largest companies are dominating the cable and wireless industry while buying out smaller competitors
- Companies acquire more customers by offering a variety of services



Economic and Industry Climate for AirThread

- Although AirThread had experience improvements in revenue growth and operating margins, they still faced significant financial pressures due to the extremely competitive market
- Some metrics attributed to its success during 2005-2007 are as follows

	2005	2006	2007
Return on NOA	3.60%	5.00%	7.10%
ROE	5.70%	6.00%	9.80%
Asset Turnover	87.30%	94.40%	103.40%

	EBIT Margin	EBITDA Margin	NI Margin
<i>Comps</i>			
Universal Mobile	26.90%	38.60%	8.60%
Neuberger Wireless	16.40%	33.00%	9.60%
Agile Connections	4.70%	28.60%	-0.10%
Big Country Communications	17.20%	32.40%	8.70%
Rocky Mountain Wireless	12.60%	25.30%	5.90%
Average	15.60%	31.60%	6.60%
AirThread	11.40%	26.20%	8.00%



American Cable Acquisition of AirThread

- Classic LBO approach
- American Cable currently struggles with:
 - Lack of revenue stability
 - Lack of wireless offerings for bundling service
 - Dependency on retail and residential customers
 - Competitors with wireless expanding to cable services
- Airthread Connections currently struggles with:
 - Lower operating and EBITDA margins
 - Commoditized market
 - Long term survival?



American Cable Acquisition of AirThread

- Both companies benefit from acquisition
 - Increase revenue from cost synergies
 - Bundling - able to add wireless to already existing landline, internet, and video services
 - Stabilize EBITDA and operating margins in the face of a commoditized industry
 - Airthread benefits from backhaul cost reduction to compete with ILECs
 - Both companies enter the business market segment
 - Expand client base



Valuation Approaches and Why

- Utilized APV and hybrid APV/multiples approach using given historical P/E ratio
 - Reason: Constantly changing capital structure year over year
- This is attributed to AirThread paying down their debt month over month on a 5 year schedule
- With the APV approach, we discounted:
 - AirThread's Free Cash Flows by an unlevered cost of capital
 - Interest Tax Shield by the cost of debt
 - Terminal cash flows using a cost of capital in line with the target D/V structure
 - In this case, the target D/V was 50%

Costs of Capital When Using APV Valuation

- APV is different from standard WACC approach in that two discount rates are being used for different components of the valuation

$$V_F(\text{APV}) = \sum_{t=1}^{\infty} \frac{\text{FCFF}_t}{(1 + \text{Unlevered WACC})^t} + \sum_{t=0}^n \frac{T_c * \text{Interest Expense}_t}{(1 + r_D)^t}$$

AirThread Levered Be	1.07
Ke of AirThread Using CAPM	9.58%
Kd of AirThread	5.50%
Ba for Airthread	0.78125
Ku for Airthread:	8.16%

Unlever / Lever from comps to fit AirThreads Cap Structure

$$\beta_E = \beta_A + (\beta_A - \beta_D)(1 - T_c) \frac{V_D}{V_E}$$

CAPM but Ba instead of Be

Valuation Using APV (with synergies)

Period	1	2	3	4	5
Year:	2008	2009	2010	2011	2012
Service Revenue	\$4,194.30	\$4,781.50	\$5,379.20	\$5,917.20	\$6,331.40
Equipment Revenue	\$314.80	\$ 358.80	\$ 403.70	\$ 444.10	\$ 475.20
Annual Business Revenue Increase	\$156.00	\$ 269.00	\$ 387.00	\$ 570.00	\$ 704.00
Total Revenue	\$4,665.10	\$5,409.30	\$6,169.90	\$6,931.30	\$7,510.60
System Operating Expenses	\$ 839.90	\$ 956.30	\$ 1,057.80	\$ 1,183.40	\$ 1,266.30
COGS	\$ 755.50	\$ 861.20	\$ 968.90	\$ 1,065.80	\$ 1,140.40
SG&A	\$ 1,803.60	\$ 2,056.20	\$ 2,313.20	\$ 2,544.50	\$ 2,722.60
Depreciation & Amortization	\$ 705.20	\$ 804.00	\$ 867.40	\$ 922.40	\$ 952.90
Plus: Backhaul Savings From Synergies	\$ -	\$ 13.40	\$ 25.80	\$ 52.50	\$ 76.00
EBIT	\$560.90	\$745.00	\$988.40	\$1,267.70	\$1,504.40
Tax Rate	40%	40%	40%	40%	40%
Taxes	\$224.36	\$298.00	\$395.36	\$507.08	\$601.76
NOPAT	\$336.54	\$447.00	\$593.04	\$760.62	\$902.64
Addback: Depreciation & Amortization	\$ 705.20	\$ 804.00	\$ 867.40	\$ 922.40	\$ 952.90
Less: CAPEX	\$ 631.27	\$ 719.65	\$ 867.44	\$ 970.09	\$ 1,055.01
Less: Change NWC	\$ 74.71	\$ 37.19	\$ 40.69	\$ 40.63	\$ 32.45
FCFF	\$335.76	\$494.15	\$552.31	\$672.31	\$768.09
Terminal Growth Rate					2.00%
Terminal Value					\$ 12,718.30
					\$ 8,592.02
PV of FCFF	\$310.43	\$422.40	\$436.50	\$491.25	\$ 518.89
Sum of PV of FCFF	\$2,179.47				
Sum of PV of TV	\$ 8,592.02				
Sum of PV of ITS	\$ 322.11				
APV Valuation of AirThread	\$11,093.60				

- $K_u = 8.16\%$
- $K_d = 5.50\%$
- Terminal Growth Rate = 2.00%

Valuation Using APV (no synergies)

	1	2	3	4	5
Year:	2008	2009	2010	2011	2012
Service Revenue	\$4,194.30	\$4,781.50	\$5,379.20	\$5,917.20	\$6,331.40
Equipment Revenue	\$314.80	\$ 358.80	\$ 403.70	\$ 444.10	\$ 475.20
Annual Business Revenue Increase					
Total Revenue	\$4,509.10	\$5,140.30	\$5,782.90	\$6,361.30	\$6,806.60
System Operating Expenses	\$ 839.90	\$ 956.30	\$1,057.80	\$1,183.40	\$ 1,266.30
COGS	\$ 755.50	\$ 861.20	\$ 968.90	\$1,065.80	\$ 1,140.40
SG&A	\$ 1,803.60	\$2,056.20	\$2,313.20	\$2,544.50	\$ 2,722.60
Depreciation & Amortization	\$ 705.20	\$ 804.00	\$ 867.40	\$ 922.40	\$ 952.90
Plus: Backhaul Savings From Synergies					
EBIT	\$404.90	\$462.60	\$575.60	\$645.20	\$724.40
Tax Rate	40%	40%	40%	40%	40%
Taxes	\$161.96	\$185.04	\$230.24	\$258.08	\$289.76
NOPAT	\$242.94	\$277.56	\$345.36	\$387.12	\$434.64
Addback: Depreciation & Amortization	\$ 705.20	\$ 804.00	\$ 867.40	\$ 922.40	\$ 952.90
Less: CAPEX	\$ 631.27	\$ 719.65	\$ 867.44	\$ 970.09	\$ 1,055.01
Less: Change NWC	\$ 56.65	\$ 24.12	\$ 27.04	\$ 19.45	\$ 16.94
FCFF	\$260.21	\$337.79	\$318.29	\$319.99	\$315.59
Terminal Growth Rate					2.00%
Terminal Value					\$ 5,225.76
					\$ 3,530.33
PV of FCFF	\$240.58	\$288.75	\$251.55	\$233.81	\$ 213.20
Sum of PV of FCFF	\$1,227.89				
Sum of PV of TV	\$ 3,530.33				
Sum of PV of ITS	\$ 322.11				
APV Valuation of AirThread	\$5,080.33				

- $K_u = 8.16\%$
- $K_d = 5.50\%$
- Terminal Growth Rate = 2.00%



Sensitivity Analysis - Varying Terminal Growth Rate

Terminal Growth Rate:		0.50%	1%	2%	3%	5%
Full Synergies	\$	9,309.48	\$9,821.12	\$11,093.60	\$12,859.28	\$19,743.20
Base Case - No synergies	\$	4,347.26	\$4,557.49	\$ 5,080.33	\$ 5,805.82	\$ 8,634.32

- Terminal growth rate ranging from 0.50% - 5% to depict sensitivity in valuation
- Terminal growth rate carries a substantial impact on valuation



P/E Approach Using Comps Data

Airthread Value of Non-Operating Assets	
	Values
Valuation	\$90
P/E Multiple	19.095
Value of Non-Operating Assets	\$1,718.55
Sum of PV of FCF	\$2,179.47
Sum of PV of TV	\$8,592.02
Sum of PV of ITS	\$322.11
Base Case Valuation of Airthread	\$12,812.15

- Valuation given in Exhibit 4: “Equity in Earnings of Affiliates” 2007
- P/E multiple given in case - historic industry average
- Value of Non-Operating Assets: **\$1,718.55**
- Valuation of Airthread: **\$12,812.15**



Conclusion

- Our valuation varies on the presence of synergies AirThreads provides for ACC and the terminal growth rate
- Given the APV and multiple methods, our recommendation based on each scenario is:

AirThreads for ACC with Synergies	\$	11,093,598,227.32
AirThreads for ACC without Synergies	\$	5,080,331,662.44
AirThreads for ACC with Synergies using P/E multiples approach	\$	12,812,150,000.00



Questions?