

Valuation of AirThread Connections



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Review of AirThread Acquisition

- Opportunity to acquire AirThread Connections
- Base-Case Valuation of AirThread Connections:
 - What our competitor's will be willing to pay
 - Value of AirThread Connections "as-is"
- Upside Valuation of AirThread Connections:
 - AirThread has strategic fit with current ACC operations
 - Potential synergies for future service offerings
- Recommendation:
 - Purchase AirThread Connections for amount between \$8.162 B and \$13.525 B.

Outline of Valuation Steps

- Base-Case Valuation of AirThread Connections:
 - Calculate the present value of free cash flows
 - Project the terminal value of ATC's operations
 - Calculate the present value of the interest tax subsidy
 - Estimate value of non-operating assets
 - Determine private company discount, if any
 - Proceed with final valuation and terminal value calculation
- Upside Valuation of AirThread Connections:
 - Calculate the present value of free cash flows *with synergies*
 - Incorporate data from Steps 2 – 5 as seen above
 - Proceed with final valuation and terminal value calculation

Adjusted Present Value

- Used Adjusted Present Value (APV) valuation method
- Value AirThread assuming 100% equity financing
- Avoids calculating debt-to-equity ratio for consecutive years
- Use “Return on Assets” to discount 2008 – 2012 cash flows
- Return on Assets = 7.82%

Base-Case Operating FCFs

- Total Present Value of Unlevered Cash Flows 2008 – 2012:
 - \$1.272 B
 - Excludes terminal value

		2008	2009	2010	2011	2012
Net Income		\$243.55	\$277.64	\$334.56	\$387.10	\$434.62
Plus Depreciation		\$705.23	\$803.96	\$867.44	\$922.38	\$952.91
Less NWC*		\$25.83	\$19.66	\$20.01	\$18.01	\$13.87
Less Investment Expenditure		\$631.27	\$719.65	\$867.44	\$970.09	\$1,055.01
Unlevered Free Cash Flow		\$291.67	\$342.29	\$314.55	\$321.38	\$318.65
Present Value of Free Cash Flow	7.82%	\$270.50	\$294.41	\$250.92	\$237.76	\$218.64
Total Present Value of Unlevered Cash Flow		\$1,272.24				

Calculating Terminal Value

- Common Assumption:
 - Future cash flows look like the last FCF, times a growth factor
- Using Weighted-Average Cost of Capital (WACC) we discount all perpetual future cash flows

$$\textit{Terminal Value} = \frac{C(1 + g)}{(WACC - g)}$$

- Terminal Value of Perpetual Future Cash Flows:
 - \$6.322 B

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Projected Growth Rate

- U.S. Department of Commerce – Bureau of Economic Analysis
 - U.S. Gross Domestic Product data from 1930 onward
 - Tables show percent Δ from preceding periods
- Decided on period from 1976 – 2006
 - Three most recent decades to capture trends
 - Will use 30-year average percent Δ rate in *nominal terms*
- 30-year nominal GDP % $\Delta = + 7.28\%$ (*Growth Rate Upper Bound*)
- 30-year real GDP % $\Delta = + 3.33\%$
- 30-year inflation = + 0.91% (*Growth Rate Lower Bound*)
 - $(1 + R_{nom}) = (1 + R_{real}) * (1 + i)$
- *Projected Future Growth Rate of AirThread = 3.50%*

Weighted Average Cost of Capital

- Use a Market Multiples Method Approach:
 - Debt / Value = 29% ; Equity / Value = 71%
 - $\beta_{\text{equity}} = 0.90$ (assuming a portfolio of companies)
- Using CAPM $\rightarrow R_{\text{equity}} = 8.77\%$, $R_{\text{debt}} = 5.50\%$, $R_{\text{asset}} = 7.82\%$
- *Weighted Average Cost of Capital Equation (WACC) = 7.19%*
- Terminal Value of Perpetual Future Cash Flows:
 - \$6.322

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Interest Tax Subsidy

- Assumption:
 - Debt is five times (5x) EBITDA
- Using a rate between R_{debt} and R_{asset} we discount the interest payments.
- Here, debt does not have a significant impact on AirThread's value
- *Value of Interest Tax Subsidy = \$278 M*

Value of Non-Operating Assets

- AirThread Income Statement shows “Equity in Earnings of Affiliates”
- Assumption:
 - ATC investments are within wireless communications industry

Comparable Companies	Equity Market Value	Net Income	Weight Based on Equity Value	P/E Ratio
Universal Mobile	65,173	3,794	30.67%	17
Neuberger Wireless	94,735	4,103	44.58%	23
Agile Connections	37,942	(30)	0.00%	Excluded
Big Country Communications	47,314	3,384	22.26%	14
Rocky Mountain Wireless	5,299	240	2.49%	22
Average	\$50,092.60	\$2,298.16	1.00	19.22

- Calculated weight-based P/E ratio for comparable companies
- Valuation: \$90M “Equity in Earnings of Affiliates” * 19.22 P/E Ratio
- *Value of AirThread Non-Operating Assets = \$1.730 B*

Base-Case Valuation Results

Item	Base Value (\$Millions)
Unlevered Operating FCFs (w/o Terminal Value)	1,272
Interest Tax Subsidy	278
Terminal Value	6,322
Value of Non-Operating Assets	1,730
Total Value <i>before</i> Private Company Discount	9,603
Private Company Discount (15%)	(1,440)
Total Base-Case Value of AirThread Connections	\$8,162

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Operating FCFs with Synergies

- Potential Synergies:
 - Increase in revenue from additional service offerings
 - Decrease in operating expenses
- Total Present Value of Unlevered Cash Flows (Synergies) 2008 – 2012:
 - \$1.912 B
 - Excludes terminal value

		2008	2009	2010	2011	2012
Net Income		\$285.07	\$349.24	\$439.05	\$542.71	\$628.92
Plus Depreciation		\$729.63	\$846.03	\$925.49	\$1,005.03	\$1,051.47
Less NWC*		\$31.33	\$25.04	\$25.46	\$27.24	\$21.04
Less Investment Expenditure		\$631.27	\$719.65	\$867.44	\$970.09	\$1,055.01
Unlevered Free Cash Flow		\$352.09	\$450.58	\$471.64	\$550.41	\$604.35
Present Value of Free Cash Flow	7.82%	\$326.54	\$387.56	\$376.23	\$407.21	\$414.67
Total Present Value of Unlevered Cash Flow		\$1,912.21				

Valuation Results with Synergies

Item	Base Value (\$ Millions)	With Synergy (\$ Millions)
Unlevered Operating FCFs (w/o Terminal Value)	1,272	1,912
Interest Tax Subsidy	278	278
Terminal Value	6,322	11,991
Value of Non-Operating Assets	1,730	1,730
Total Value before Private Company Discount	9,603	15,911
Private Company Discount (15%)	(1,440)	(2,387)
Total Value of AirThread Connections	\$8,162	\$13,525

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Sensitivity Analysis

- Private Company Discount:
 - Discount related to illiquidity of private investments
 - Discount diminishes as revenue of company increases
 - Bounded on lower end by cost of going public equal to 10%

Liquidity Discount	Total Firm Value	
	Base Case	Synergy Case
10%	8,642	14,320
15%	8,162	13,525
20%	7,682	12,729

Sensitivity Analysis

- Growth Rate:
 - Used in terminal value calculation
 - Can have a tremendous affect on terminal value
 - 1.5% to 2.5% Δ in growth rate has a \$3.000 B to \$7.000 B affect on AirThread's value

	Total Firm Value	
Growth Rate	Base Case	Synergy Case
1%	5,913	9,259
3.5%	8,162	13,525
5%	11,980	20,765

Sensitivity Analysis

- Potential Synergy:
 - Increase in revenue from bundled service offerings
 - Could be higher or lower than expected
 - 20% Δ in revenue has a \$1.000 B affect on AirThread's value

Revenue Increase	Total Firm Value
20% lower than expected	12,518
Expected Revenue	13,525
20% higher than expected	14,595

Final Recommendation

- Recommendation:
 - Purchase AirThread Connections if obtainable for amount between \$8.162 B and \$13.525 B.
- Special attention should be given to the projected growth rate of AirThread Connections.
 - Will have a significant affect on total value of the firm
 - 1% Δ in growth rate has ~30% net affect on total firm value