



Mail Stop 3720

May 18, 2007

Randall S. Battat
President and Chief Executive Officer
Airvana, Inc.
19 Alpha Road
Chelmsford, Massachusetts 01824

Re: Airvana, Inc.
Form S-1
Filed April 19, 2007
File No. 333-142210

Dear Mr. Battat:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree with any of our comments, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Please be advised that you should include the price range, the size of the offering, and all other required information in an amendment to your Form S-1 prior to any distribution of preliminary prospectuses so that we may complete our review. Note that we may have additional comments once you have provided this disclosure. Therefore, please allow us sufficient time to review your complete

disclosure prior to any distribution of preliminary prospectuses. Refer to Items 501(b)(2) and 501(b)(3) of Regulation S-K and Rule 430A of Regulation C.

2. We are currently processing your request for confidential treatment for Exhibits 10.6, 10.7, and 10.8 to the Form S-1. Any comments we have on the confidential treatment request will follow under separate cover.
3. Please furnish in your response letter a statement as to whether or not the amount of compensation to be allowed or paid to the underwriter has been cleared with the NASD. Prior to the effectiveness of this registration statement, please provide us with a copy of the letter informing that the NASD has no objections.
4. We encourage you to file all exhibits with your next amendment or otherwise furnish us drafts of your legality opinion and underwriting agreement. We must review these documents before the registration statement is declared effective, and we may have additional comments.

Prospectus Summary, page 1

5. Please delete the non-GAAP financial measure, product and service billings, in the last paragraph on page 1. Non-GAAP financial measures should be presented only in the table of financial data or MD&A.

The introduction of fourth generation wireless technology could reduce spending on our..., page 8

6. We note that Nortel has publicly announced an intention to supply 4G-based products and the absence of any agreement between the two of you to supply Nortel with any 4G-based products. Clarify whether a competitor of yours could become Nortel's primary supplier for 4G-based products.

Our products are highly technical and may contain undetected software...., page 17

7. Disclose any examples of material defects or problems with your products to date.

Use of Proceeds, page 22

8. We note that the company plans to use the proceeds of this offering on the development of new products, sales and marketing activities and capital expenditures. Please revise to give a brief outline of your plans, with consideration given to “the need to include a discussion of certain matters addressed in the discussion and analysis of registrant's financial condition and results of operations, such as...capital expenditures.” See Instruction 2 to Item 504 of Regulation S-K.

Dividend Policy, page 22

9. Discuss the reasons for paying a special dividend in April and why the board decided not to continue paying a dividend after the ipo. Disclose whether any affiliates ,including board members who approved the special dividend, received the special dividend and, if so, identify the members of management and the board who received the dividend and quantify the aggregate amount received by management (using the ipo price midpoint).

Selected Consolidated Financial Data, page 26

10. Expand the disclosure of the calculation of pro forma earnings per share in Note 1 to address the pro forma adjustments to net income and explain the reasons for the increase in pro forma earnings per share. Also make similar revisions in the Summary Consolidated Data section on page 5.

Management’s Discussion and Analysis, page 29

Our OEM Business Model, page 29

11. Please provide a discussion and analysis with respect to management’s views on the role that competition plays and will play in the operations of Airvana,

especially in light of the interplay between the collaboration with customers described in this section and the discussion of competition contained on page 62.

12. Explain why you do not expect to commence significant sales to two OEM customers with whom you have executed supply agreements.

Impact of Statement of Position 97-2, Software Revenue Recognition, page 30

13. We note your explanation for the high degree of variability in your revenues for your historical periods. Clarify whether management expects the degree of variability to decrease in the future as you become a more seasoned company with greater amounts of deferred revenues from prior periods.
14. If material, discuss the company's experience with non-payment by customers due to cancellations or financial hardship.

Key Elements of Financial performance, page 32

15. Whenever you present a non-GAAP financial measure in a filing, you are required to include the disclosures set forth in Item 10(e) of Regulation S-K. Please revise to clearly identify all non-GAAP measures presented in this section and include, in close proximity, these required disclosures.
16. We refer to your disclosures in the fourth paragraph of this section, beginning with, "Our product revenue in fiscal 2006..." Although we understand it is challenging to explain the timing issues associated with your product upgrades and associated revenue recognition, this paragraph is difficult to understand. Please revise to clarify the intended message of this paragraph. You may want to consider eliminating references to specific quarters or adding a table to enhance your written disclosure.
17. Explain why beginning in the third quarter of fiscal 2006 did the company choose to license your hardware design to Nortel instead of having Nortel purchase the hardware directly from the company.

18. We note your disclosure in the fourth paragraph under the heading “Product Revenue” on page 32. Please clarify the amount of revenue you expect to recognize which has been deferred from the second quarter of fiscal 2005 to the third quarter of fiscal 2006 in both real and percentage terms (compared with your total outstanding deferred billings).
19. Quantify, if possible, the expected effect on service revenue in fiscal 2007 due to the completion of the professional services contract in fiscal 2006 for a direct customer.
20. We note your disclosure in the third paragraph under the heading “Product and Service Billings” on page 33. We also note the discussion of coordination and collaboration under the heading “Our OEM Business Model.” To the extent possible, please elaborate upon the number of specified software upgrades that you have pending with customers and the approximate timeframes in which you expect to be able to bill each, or discuss why such forecast is not possible.
21. We note your statement that you expect cash flow from operating activities in fiscal 2007 to be greater than cash flow from operating activities in fiscal 2006 primarily due to the timing of customer collections and tax payments. Clarify the reasons for this positive change (e.g. was it due to more efficient billing operations?).
22. We note the disclosure on page 38 indicating that the expected volatility for options granted during fiscal 2006 was 89%. Explain what you mean by this statement.

Stock –Based Compensation, page 37

23. For options granted in 2006 and 2007, as shown in the table on page 38, and through the date of your response letter, please provide us with a schedule showing for each grant date:
 - the number of shares subject to options;
 - the estimated fair value of the option;
 - the total amount of compensation cost; and
 - the amount recognized as expense in 2006.

We may have additional comments when you disclose the anticipated offering price in the document.

Liquidity and Capital Resources, page 48

24. Explain how the company funded the \$72.7 million special dividend.

Research and Development, page 62

25. Clarify whether management expects significant growth in research and development expense to continue in the future.

Executive Compensation, page 70

26. We note your disclosure on page 70. So that investors may understand the kind of benchmarking information you used in determining annual executive compensation, identify all of the companies and their respective industries that were considered for purposes of benchmarking the elements of the named executive officers' compensation. See Regulation S-K Item 402(a)(v) and (b)(2)(xiv). Additionally, please identify the specific elements benchmarked or state that you benchmarked total compensation.
27. We note the use of performance objectives used in the determination of the named executive officers' bonuses. Identify these objectives unless doing so would cause the company material competitive harm. If you believe material competitive harm will result, tell us in your response letter the specific reasons why, in accordance with the analysis set forth in Instruction 4 to Item 402(b). If your analysis results in your determination that such performance-related factors are properly excluded from disclosure, please provide the alternate disclosure provided for in the same Instruction.
28. For all of your performance-based compensation elements, please clarify the specific metrics used for each named executive officer. For example, we note the statement on page 71 that Mr. Pajares is entitled to commissions based on the achievement of billings targets and predetermined strategic objectives. Please clarify what those objectives were and the levels set for 2006.

29. For all of your performance-based compensation elements, clarify what goals and targets were exceeded, achieved or underachieved for each named executive officer and how the performance results for each element support the bonus.
30. We note the use of the term “such as” in your disclosure relating to the metrics used to determine annual incentive cash bonuses. Please revise to clarify all specific metrics used.
31. We note the statement on page 71 in the second paragraph under "Annual Incentive Cash Bonuses" that the annual incentive cash bonus plan "provides for additional payouts if stretch objectives are achieved with the maximum payout capped at three times the target level." Please explain what you mean by "stretch" objectives. Clarify the specific objectives and specific bonus payments to be made upon fulfillment of such objectives. Clarify whether the target level is the same as the target percentages mentioned earlier in the paragraph and whether the maximum payout of three times the target level is in addition to the regular incentive cash bonus payout.
32. We note the various exercise prices with respect to the option grants noted on page 38. Please discuss the factors considered when determining the exercise price for each grant to each named executive officer.
33. We note the statement in footnote one on page 73 that “...the amounts reported in this column are \$110,245 higher than the amounts reported with respect to fiscal 2006.” Please tell us, and revise to clarify, what you mean by this statement.
34. Please consider revising footnote one on page 73 to describe the method of valuing the option grants pursuant to SFAS 123(R) so that average investors may better understand the reference.

Age of Financial Statements

35. Update the financial statements and other financial information to include the interim period ended March 31, 2007, as required by Rule 3-12 of Regulation S-X.

Note 2. Summary of Significant Accounting Policies, page F-7
Unaudited pro forma presentation, page F-7

36. Disclose the amount of each adjustment to the balance sheet and net income used in the calculation of pro forma earnings per share. Also disclose pro forma net income.

Revenue Recognition, page F-10

37. Please revise to clarify the scope of warranties that you offer and how you account for such warranties to both your OEM customers and their customers.
38. Please revise to describe your refund policy and how it relates to your recognition of revenue and related receivables.
39. It is not clear who your ultimate customer is and what impact this has on your revenue recognition policy. On page 33, you state that software-only product sales under OEM agreements are invoiced monthly upon notification of sell-through by the OEM customer to its customers. Please revise your revenue recognition policy to clarify if your revenue recognition is always based on sell-through notification.

Note 8. Redeemable Convertible Preferred Stock, page F-18

40. We note that you could be required to redeem your convertible preferred stock if certain events occur. Please disclose the conditions that would require redemption.

Note 10. The 2000 Stock Incentive Plan, page F-21

41. Please disclose the weighted average grant-date fair value as required by paragraph A240(c) of SFAS No. 123(R).

Note 15. Subsequent Events, page F-26

42. We note that in conjunction with the special cash dividend paid to stockholders, all vested and unvested options outstanding were adjusted. Please revise to disclose the accounting impact this will have on future results of operations and tell us in detail the accounting literature that you relied upon in your determination of the appropriate accounting treatment.

* * * *

Please amend your Form S-1 in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the Company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures that they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

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- the Company may not assert this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they may relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Christine Adams, Staff Accountant, at (202) 551-3363 or Terry French, Accountant Branch Chief, at (202) 551-3828 if you have questions regarding comments on the financial statements and related matters. Please contact John Zitko, Staff Attorney, at (202) 551-3399, or me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spigel
Assistant Director

cc: Mark G. Borden, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP
Via Facsimile: (617) 526-5000