

REALNETWORKS INC

Form 10-K

February 27, 2017

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Fiscal Year Ended December 31, 2016

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 0-23137

RealNetworks, Inc.

(Exact name of registrant as specified in its charter)

Washington 91-1628146

(State of incorporation) (I.R.S. Employer Identification Number)

1501 First Avenue South, Suite 600, Seattle, Washington, 98134

(206) 674-2700

(Address of principal executive offices, zip code, telephone number)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
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Common Stock, Par Value \$0.001 per share	The NASDAQ Stock Market
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Preferred Share Purchase Rights	The NASDAQ Stock Market
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Securities registered pursuant to Section 12(g) of the Act:

None

(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

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(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the common stock held by non-affiliates of the registrant was \$99 million on June 30, 2016, based on the closing price of the common stock on that date, as reported on the Nasdaq Global Select Market. Shares held by each executive officer and director have been excluded in that such persons may be deemed to be affiliates. In the case of 10% or greater shareholders, we have not deemed such shareholders to be affiliates unless there are facts and circumstances which would indicate that such shareholders exercise any control over our company. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares of the registrant's common stock outstanding as of February 24, 2017 was 37,017,924.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant has incorporated by reference the information required by Part III of this Annual Report from its Proxy Statement relating to its 2017 Annual Meeting of Shareholders or an amendment to this Form 10-K, to be filed within 120 days after the end of its fiscal year ended December 31, 2016.

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PART I.

This Annual Report on Form 10-K and the documents incorporated herein by reference contain forward-looking statements that have been made pursuant to the provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current expectations, estimates, and projections about RealNetworks' industry, products, management's beliefs, and certain assumptions made by management. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," and similar expressions are intended to identify forward-looking statements. All statements contained in this report that do not relate to matters of historical fact should be considered forward-looking statements. Forward-looking statements include statements with respect to:

- the expected benefits and other consequences of our growth plans, strategic initiatives, and restructurings;
- our expected introduction, and related monetization, of new and enhanced products, services and technologies across our businesses;
- future revenues, operating expenses, income and other taxes, tax benefits, net income (loss) per diluted share available to common shareholders, acquisition costs and related amortization, and other measures of results of operations;
- the effects of our past acquisitions and expectations for future acquisitions and divestitures;
- plans, strategies and expected opportunities for future growth, increased profitability and innovation;
- the expected financial position, performance, growth and profitability of, and investment in, our businesses and the availability of resources;
- the effects of legislation, regulations, administrative proceedings, court rulings, settlement negotiations and other factors that may impact our businesses;
- the continuation and expected nature of certain customer relationships;
- impacts of competition and certain customer relationships on the future financial performance and growth of our businesses;
- our involvement in potential claims, legal proceedings and government investigations, and the potential outcomes and effects of such potential claims, legal proceedings and governmental investigations on our business, prospects, financial condition or results of operations;
- the effects of U.S. and foreign income and other taxes on our business, prospects, financial condition or results of operations; and
- the effect of economic and market conditions on our business, prospects, financial condition or results of operations.

These statements are not guarantees of future performance and actual actions or results may differ materially. These statements are subject to certain risks, uncertainties and assumptions that are difficult to predict, including those noted in the documents incorporated herein by reference. Particular attention should also be paid to the cautionary language in Item 1A entitled "Risk Factors." RealNetworks undertakes no obligation to update publicly any forward-looking statements as a result of new information, future events or otherwise, unless required by law. Readers should, however, carefully review the risk factors included in other reports or documents filed by RealNetworks from time to time with the Securities and Exchange Commission, particularly the Quarterly Reports on Form 10-Q and any Current Reports on Form 8-K.

Item 1. Business

Overview

RealNetworks creates innovative applications and services that make it easy to connect with and enjoy digital media. We invented the streaming media category in 1995 and continue to connect consumers with their digital media both directly and through partners, aiming to support every network, device, media type and social network. We provide the digital media services and products we create to consumers, mobile carriers and other businesses.

Consumers use our services and software to store, organize, play and manage their digital media content. Our consumer products and services include our photo and video sharing and storage application, our casual games, our direct-to-consumer ringback tone and productivity tool, and RealPlayer®, our widely distributed media player. Network service providers, such as mobile carriers, use our products and services to create and deliver digital media and messaging services, such as ringback tones, music on demand, intercarrier messaging, and photo and video sharing technology for their subscribers. The distribution and license of our products, services and technologies are dependent on contracts with third parties.

We were incorporated in 1994 in the State of Washington. Our common stock is listed on the NASDAQ Stock Market under the symbol "RNWK."

In this Annual Report on Form 10-K for the year ended December 31, 2016, RealNetworks, Inc., together with its subsidiaries, is referred to as "RealNetworks", the "Company", "we", "us", or "our". "RealPlayer," "RealTimes," "RealMedia," and other trademarks of ours appearing in this report are our property.

Segments

In the first quarter of 2016, we reorganized the management of our businesses, and as a result we report revenue and operating income (loss) in three segments: (1) Consumer Media, (2) Mobile Services, and (3) Games. We allocate to our reportable segments certain corporate expenses which are directly attributable to supporting the business, including but not limited to a portion of finance, legal, human resources and headquarters facilities. Remaining expenses, which are not directly attributable to supporting the business, are reported as corporate items. Also reported in our corporate segment are restructuring charges, lease exit and related charges, as well as stock compensation charges. Concurrent with the first quarter of 2016 segment change, we also changed our corporate expense allocation methodology to increase accountability, resulting in an increase in costs allocated to the Consumer Media and Mobile Services businesses. We have recast the historical financial information presented to reflect the new segments and new expense allocation methodology.

Consumer Media

Within our Consumer Media business, our RealPlayer media player software includes features and services that enable consumers to discover, play, download, manage and edit digital video, stream audio and video, download and save photos and videos from the web, transfer and share content on social networks, and edit their own photo and video content.

In our Consumer Media segment, revenue is derived from online sales to consumers of our PC-based RealPlayer products, including RealPlayer Plus, the premium version of our media player, and from the distribution of third-party software products to consumers who wish to download additional applications when downloading our software products. We also generate revenue through our RealPlayer subscription products, including our SuperPass service. SuperPass is our subscription service that provides consumers with access to a broad range of digital entertainment content for a monthly fee.

In addition to consumer products, we also license our technology, including our recently introduced RealMedia High Definition, or RMHD, codec technology to a variety of electronic equipment and microchip manufacturers who embed our codecs in their phones, laptops, smart TVs and other devices. We also promote the use of our codec technology to producers of media content and users of RealPlayer, which recently incorporated RMHD codec technology, to encourage the adoption of our RMHD technology by device manufacturers.

Mobile Services

Mobile Services consists primarily of the digital media services we provide to mobile and online service providers as software as a service (SaaS) offerings. Included in our SaaS offerings are our RealTimes, ringback tone and intercarrier messaging service, which are provided to a large number of mobile carriers around the world. Also included in our SaaS offerings is our music on demand service, which is provided in Korea. In connection with our

SaaS services, we also offer business intelligence, subscriber management and billing for the carriers who obtain our offerings for their customers.

We generate a significant portion of our revenue from sales within our Mobile Services business to a few mobile telecommunications carriers and our low-margin music on demand customer in Korea. In the near term, we expect that we

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will continue to generate a significant portion of our total revenue in this segment and our consolidated revenue from these customers.

Our photo and video sharing product, RealTimes® was launched in the second quarter of 2015. RealTimes gives consumers more options and control over their digital memories. With the RealTimes product, consumers can find, watch, save and share their photos and videos on multiple devices and across multiple platforms, as well as create photo and video collages, or "RealTimes Stories." RealTimes is distributed both directly to consumers and through partners. We offer both an entry-level free version for consumers, as well as a premium subscription version. Within our Mobile Services group, we focus on leveraging current and prospective wireless carrier relationships to increase distribution of RealTimes. In the fourth quarter of 2015 we entered into two carrier agreements for our RealTimes product and added two more in 2016.

Our ringback tone services enable callers to hear subscriber-selected music or messages instead of the traditional electronic ringing sound while waiting for the person they have called to answer. We primarily offer ringback tone services via mobile telecommunications carriers, where, in return for providing, operating and managing the ringback tone service for the carrier customers, we generally enter into revenue-sharing arrangements with the carriers based on monthly subscription fees, content download fees or a combination of such fees paid by subscribers.

Our intercarrier messaging platform enables operators to send and receive SMS messages worldwide between networks and service providers, regardless of network technology. Our platform processes billions of SMS messages per day between users on hundreds of different networks. Our intercarrier messaging services are delivered through various carrier partners within the U.S. and internationally. The revenue we earn from our intercarrier messaging service is subject to a revenue-sharing arrangement with our service partner.

Our low-margin music on demand service, provided through our partner in Korea, offers a wide range of songs for downloading or streaming to PCs and mobile devices through various payment arrangements.

Games

We develop, publish, license and distribute casual games, which are offered via mobile devices, digital downloads, online subscription play, third-party portals, and social networks. Casual games typically have simple graphics, rules and controls, are quick to learn, and often include time-management, board, card, puzzle, word and hidden-object games.

We have a large and diverse portfolio of original games developed by our in-house game studios, games developed by us from content we license from other intellectual property holders, games developed through partnerships with external game developers, and games licensed to us by third parties that we distribute to our customers. We distribute games principally in North America, Europe and Latin America through our GameHouse and Zylom websites and through websites owned or managed by third parties.

We monetize our games largely through sales of game licenses and subscriptions. We develop mobile games for play on handsets, smartphones and tablets, which can be purchased in app stores. Consumers can also play and purchase games from our catalog of online and downloadable PC games. We typically introduce new games by offering a free trial before purchase on an individual basis or as part of one of our subscription services. In addition to revenue from sales of game licenses and subscriptions, we also generate revenue from display advertising that is shown to consumers during online play.

See Note 18. Segment Information, in this Form 10-K for additional details on our segments and geographic concentrations.

Rhapsody

At December 31, 2016, we owned approximately 42% of the issued and outstanding stock of Rhapsody. See Note 4. Rhapsody Joint Venture, in this 10-K for additional details. Rhapsody provides music products and services that enable consumers to have access to digital music content from a variety of devices. The Rhapsody unlimited subscription service offers unlimited access to a catalog of tens of millions of music tracks by way of on-demand streaming and conditional downloads. Rhapsody also operates a radio-like service, branded as "UnRadio" in the U.S., through which users can listen to online radio stations based on selected artists or genres and download favorite tracks played on those stations for offline playback. Rhapsody currently offers music services worldwide (under the Napster brand) and generates revenue primarily through subscriptions to its music services either directly to consumers or through distribution partners, such as mobile carriers.

Customers

Our customers include consumers and businesses located throughout the world. Sales to customers outside the U.S., primarily in Asia and Europe, were 66%, 63% and 61% of our revenue during the years ended December 31, 2016, 2015 and 2014, respectively. See Note 18. Segment Information, for details on geographic concentrations and see Note 6. Allowance for Doubtful Accounts Receivable and Sales Returns, for details on customer revenue concentrations.

Research and Development

We devote a substantial portion of our resources to developing new products, enhancing existing products, expanding and improving our fundamental technology, and strengthening our technological expertise in all our businesses. During the years ended December 31, 2016, 2015, and 2014, we expended 25%, 35% and 34%, respectively, of our revenue on research and development activities.

Sales, Marketing and Distribution

Our marketing programs are aimed at increasing brand awareness of our products and services and stimulating demand. We use a variety of methods to market our products and services, including paid search advertising, affiliate marketing programs, advertising in print, electronic and other online media, direct mail and email offers to qualified potential and existing customers, and providing product specific information through our websites. We also cross-market products and services offered by some of our businesses through the RealPlayer and Games marketing and distribution channels. We also have subsidiaries and offices in several countries that market and sell our products outside the U.S.

Our products and services are marketed through direct and indirect channels. We use public relations, trade shows, events and speaking opportunities to market our products and services. We also use a variety of online channels, including social media, to promote and sell our products and services directly.

In our Consumer Media business, we market and sell our various RealPlayer services directly through our own websites such as Real.com, as well as indirectly through third party distribution partners.

Our Mobile Services sales, marketing and business development team works closely with many of our enterprise, infrastructure, wireless, broadband and media customers to identify new business opportunities for our entertainment applications, services and systems. Through ongoing communications with the product and marketing divisions of our customers, we tailor our SaaS offerings to their strategic needs and the needs of their subscribers.

Our games are marketed directly from our websites and through third-party distribution channels, such as mobile phone application stores, search engines, online portals, major social networks and content publishers.

Customer Support

Customer support is integral to the provision of nearly all of our consumer products and services. Consumers who purchase and use our consumer software products and services can get assistance primarily via the Internet or email, depending on the product or service. For most of our consumer products, we contract with third-party outsource support vendors to provide the primary staffing for our first-tier customer support globally. We also provide various support service options for our business customers and for software developers using our software products and associated services. Support service options include online support services and on-site support personnel covering technical and business-related support topics.

Competition

The market for software and services for digital media delivery over the Internet and wireless networks is intensely competitive. Many of our current and potential competitors have longer operating histories, greater name recognition or brand awareness, more employees or significantly greater resources than we do.

In our Consumer Media segment, our RealPlayer media player continues to face competition from alternative streaming media playback applications which have obtained very broad market penetration. The RMHD codec is competing against other next generation video codecs. We have independently developed and offer our proprietary codec, while many of our competitors have come together in patent pools to market and license competing codecs. Although we believe this approach can be a strength, in order to be successful we must overcome the inherent market penetration that arises when multiple companies promote a shared codec solution.

In our Mobile Services segment, our RealTimes product faces significant competition from both well known, firmly established companies and entrepreneurial, nimble startups which provide photo and video sharing services. In addition, as we continue to develop this product and expand its reach, we expect to see growing competition from companies offering innovative features for engaging with users' video and photo content. Our SaaS business competes with a large and diverse number of domestic and international companies, and each of our SaaS offerings tends to face competitors specific to that product or service. Our SaaS business continues to experience significant competitive pricing pressure from carriers and the proliferation of smartphone applications and services, some of which do not

depend on our carrier customers for distribution to consumers. Many of our SaaS services require a high degree of integration with carrier or service provider networks and thus require a high degree of operational expertise. In addition, our ability to enhance services with new features as the digital entertainment market evolves is critical to our competitive position, as is our knowledge of the consumer environment to which these services are targeted.

Our Games business competes with a variety of distributors, publishers and developers of casual games for mobile and PC platforms and for social networks. In addition, the market for casual games has become increasingly price competitive in recent years. Our in-house content development studios compete with other developers and publishers of mobile games based on our ability to develop and publish high quality games that resonate with consumers, our effectiveness at building our brands, and our ability to secure broad distribution. Our mobile games compete with a range of developers. Our family of websites serving the PC casual games market competes with other high volume distribution channels for downloadable, online and social games.

Intellectual Property

As of December 31, 2016, we had 19 U.S. patents, 53 South Korean patents, 15 patents in other countries and more than 30 pending patent applications worldwide relating to various aspects of our technology. We regularly analyze our patent portfolio and prepare additional patent applications on current and anticipated features of our technology in various jurisdictions across the world.

In addition to our patent portfolio, we have assembled, over time, an international portfolio of trademarks and service marks that covers certain of our products and services. We also have applications pending for additional trademarks and service marks in jurisdictions around the world, and have several unregistered trademarks. Many of our marks begin with the word “Real” (such as RealPlayer). We are aware of other companies that use “Real” in their marks alone or in combination with other words, and we do not expect to be able to prevent all third-party uses of the word “Real” for all goods and services.

Our ability to compete across our businesses partly depends on the superiority, uniqueness and value of the technology that we both develop and license from third parties. To protect our proprietary rights, we rely on a combination of patent, trademark, copyright and trade secret laws, confidentiality agreements with our employees and third parties, and protective contractual provisions. These efforts to protect our intellectual property rights may not be effective in preventing misappropriation of our technology, or may not prevent the development and design by others of products or technologies similar to or competitive with those we develop.

Employees

At December 31, 2016, we had approximately 534 employees, of which 160 were based in the Americas, 151 were based in Asia, and 223 were based in Europe. None of our employees are subject to a collective bargaining agreement.

Position on Charitable Responsibility

In periods when we have achieved sustained profitability, we intend to donate 5% of our net income to charitable organizations, which will reduce our net income for those periods. The non-profit RealNetworks Foundation, established in 2001, manages a substantial portion of our charitable giving efforts. Through the Foundation, we support our employees' philanthropic efforts by matching their donations of time and money to charitable organizations.

Available Information

Our corporate Internet address is www.realnetworks.com. We make available free of charge on www.investor.realnetworks.com our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (SEC). However, the information found on our corporate website is not part of this or any other report.

Item 1A. Risk Factors

You should carefully consider the risks described below together with all of the other information included in this Form 10-K. The risks and uncertainties described below are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. If any of the following risks actually occurs, our business, financial condition or operating results, and the trading price of our common stock, could be materially harmed.

The measures we have taken or may take to streamline or grow our business could have material adverse effects on our business or financial results if they prove to be unsuccessful or if we do not execute these measures effectively. Since 2012, we have taken steps to reduce costs, restructure, and simplify our business and operations. We have also taken steps to identify, fund or pursue initiatives intended to create or support growth in our business or financial results. These measures and initiatives have impacted virtually all of our segments at various times. We continue to

assess opportunities to further streamline our operations and make our businesses more efficient, and to grow our business through new initiatives.

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The simultaneous execution of all of these measures is complex and ambitious. There is no assurance that we will be able to effectively plan or execute plans to implement such measures, either in a timely manner or at all, and our failure to do so would have a material adverse impact on our business and financial results. The pursuit of these measures requires us to allocate limited resources among our diverse business units, business functions and initiatives and we can provide no assurance that the way we allocate our resources will prove to be effective in achieving the business outcomes we seek. The measures we take to reduce costs, restructure and simplify our business, or take to identify, fund or pursue new initiatives have in the past required, and may in the future require, significant cash outlays in excess of cash gains, and we cannot guarantee that these expenditures will have the desired return or that our cash reserves will be sufficient to complete the intended measures.

Measures that reduce costs, restructure, or simplify our business may reduce our human and capital resources. These measures may not result in profitability, and may result in increased expenses in affected periods. These measures also may negatively affect our ability to maintain, develop or deploy products or services and compete effectively, or our ability to operate our business effectively, or both.

Changes in our business as a result of measures to streamline or grow our business may create uncertainty. Our operations, business, or financial results may be adversely affected if there is customer or employee uncertainty surrounding the future direction of our product and service offerings and strategy for our businesses. If these adverse effects were to occur, or if our investors become uncertain about our offerings and strategy, our stock price may be adversely affected, and we and our shareholders may not realize the intended financial, operational and other benefits from such measures.

We need to successfully monetize our existing, new and future products and services in order to sustain and grow our businesses.

The process of developing and distributing products, services and technology is complex, costly and uncertain, and is subject to a number of risks.

Providing products and services (including license of our intellectual property) that are attractive and useful to subscribers and consumers is in part subject to unpredictable and volatile factors beyond our control, including end-user preferences, competing products and services, the rapid pace of change in the market and a limited number of dominant distribution partners. Our historically core products and services are primarily distributed through desktop computers and feature phones, and we have developed newer products and services for emerging mobile device platforms. If we do not appropriately develop or enhance our products and services, they may become obsolete. Any failure by us to timely respond to or accurately anticipate consumers' changing needs and desires, emerging technological trends or important changes in the market or competition for products and services that we introduce, or that we are investing in, are developing or have launched, could result in an increase in the current rate of decline in our market share, flat or declining revenue, or the loss of market opportunities. In addition, third parties that control access to and distribution to users through these new platforms may present obstacles to reaching our traditional customer base and other unknown distribution challenges.

We also must make long-term investments, develop or obtain appropriate intellectual property and commit significant resources before knowing whether the products and services that we are developing or have introduced will meet the demands of a large enough group of consumers. If the products and services are not successful, we may not realize a sufficient return on our investment, or may experience a loss on our investments. The investment or dedication of limited cash or other resources to particular projects for products and services may negatively affect our ability to pursue opportunities for other such projects. In addition, these long-term measures may deplete our cash reserves. In that event, we may not have sufficient cash and other resources to pursue the development or acquisition of new products or services or otherwise sustain or grow our business. Any of these events could have a material adverse impact on our business and financial results.

Moreover, if we are unsuccessful in securing profitable distribution channels with new partners, including mobile telecommunications carriers, strengthening or renewing channels with existing partners, and monetizing our products and services, our revenue and earnings may not grow or will continue to decline, and our businesses will suffer.

We invest heavily in the development of new products and services, including enhanced features for such products and services. We expect to continue to invest both in further development and in sales and marketing efforts aimed at

monetizing certain of these products and services and new products and services. If we are unable to generate sustained interest in these products and services, and therefore drive revenue growth, our financial results and cash position will continue to be materially negatively impacted.

Furthermore, products and services may be subject to legal challenge. Responding to any such claims may require us to enter into royalty and licensing agreements on unfavorable terms, require us to stop distributing or selling, or to redesign our

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products or services, or to pay damages, any of which could materially harm our operating results and our ability to grow our businesses.

Our businesses face substantial competitive challenges that may prevent us from being successful in those businesses, and may negatively impact future growth in those businesses.

Many of our current and potential competitors in our businesses have longer operating histories, greater name or brand recognition, more employees and significantly greater resources than we do. In addition, current and potential competitors may include relatively new businesses that develop or use innovative technologies, products or features that could disrupt the market for technologies, products or features we currently market or are seeking to develop. In attempting to compete with any or all of these competitors, we may experience some or all of the following consequences, any of which would adversely affect our operating results and the trading price of our stock:

- reduced prices or margins,

- loss of current and potential customers, or partners and potential partners who distribute our products and services or who provide content that we distribute to our customers,

- changes to our products, services, technologies, licenses or business practices or strategies,

- lengthened sales cycles,

- inability to meet demands for more rapid sales or development cycles,

- industry-wide changes in content distribution to customers or in trends in consumer consumption of digital media products and services,

- pressure to prematurely release products or product enhancements, or

- degradation in our stature or reputation in the market.

The market for our Mobile Services business is highly competitive and evolving rapidly. Increased use of smartphones has resulted in a proliferation of applications and services that compete with our SaaS services. For example, our ringback tones solution faces competition from alternative kinds of applications and services that carriers can deploy or offer to their subscribers, or that consumers can acquire independently of their carrier. Increased competition has in the past resulted in pricing pressure, forcing us to lower the selling price of our services. We expect this pricing pressure to continue to materially harm our operating results and financial condition.

Our RealTimes product and music on demand service also face strong competition from other technology companies and cloud service providers of substantially similar offerings, including some that are firmly established in the marketplace and have access to extensive resources, and some that specialize in video and photo sharing services or music streaming services. We have seen and expect to continue to see growing competition from companies offering innovative features for these kinds of products and services, some of which are offered for free. To be competitive, our RealTimes product must provide sufficiently engaging and compelling features for users' digital content, enticing consumers directly to the application and creating an appealing value proposition for our distribution partners.

Similarly, to be competitive, our music on demand service must provide appealing music content to meet consumer preferences at an acceptable cost. There is no assurance that current and potential customers and distribution partners will prefer our product, services and feature offerings to those of our competitors, which could materially harm our operating results and financial condition.

Our Consumer Media software and services for media playback and production (RealPlayer, RealMedia VB and RealMedia HD) compete with alternative media playback technologies and audio and video content formats that have obtained broad market penetration. RealMedia VB and RealMedia HD are codecs, technology that enables compression and decompression of the media content in a (usually proprietary) format. We license our codec technology primarily to computer, smartphone and other mobile device manufacturers. Similar to our RealPlayer software and services, our codec technology faces strong competition, from alternative technologies. To compete effectively, codec technologies must appeal to, and be adopted for use by, a wide range of parties: producers and providers of media content, consumers of media content, and device manufacturers who pre-load codec technologies into their devices. Promoting adoption of our codec technologies to a wide and diverse target market is a complex undertaking. Whether our current or future technologies and formats for producing, streaming or playing back media content, including related codec technology, will be widely and successfully adopted is highly uncertain. If we are unable to compete successfully, our Consumer Media business could continue to decline.

The branded services in our Games business compete with other developers, aggregators and distributors of mobile, online, and downloadable games. Our competitors vary in size and capabilities, which present us with a range of competitive factors and conditions to address. Some of these competitors have high volume distribution channels and greater financial resources than we do. Our Games business also competes with many other smaller companies that may be able to adjust to market conditions. We also face significant price competition in the casual games market, and some of our competitors may be able to offer games for free, or reduce prices more aggressively than us. We expect competition to continue to intensify in this

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market from these and other competitors. Our games development studios compete primarily with other developers of mobile, online, and downloadable games, and must continue to develop popular and high-quality game titles. Our Games business must also continue to execute on opportunities to expand the play of our games on a variety of non-PC platforms, including mobile, in order to maintain our competitive position and to grow the business. If we are unable to achieve future growth in our revenue, our Games business will suffer.

The distribution and license of our products, services and technologies are dependent on contracts with third parties, which subjects us to significant risks that could negatively impact our revenue or otherwise harm our operating results.

The distribution and license of our products, services and technologies are primarily dependent on contracts with third parties, such as mobile telecommunications carriers, providers of services to carriers, online service providers, OEMs, mobile device manufacturers and others. The loss of contracts, a reduction in the other parties, marketing or promotion of our offerings, or the termination or non-renewal or renegotiation of contract terms that are less favorable to us could result in the loss of future revenues and could result in the loss of anticipated profits. In our Consumer Media and Mobile Services segments, we derive a material portion of our revenue from contracts with third parties. In addition, by their nature and terms, our contracts with third parties are of a fixed duration and may terminate or may be renegotiated, or may be subject to early termination by the other party. As a result, we must seek additional contracts with third parties on an ongoing basis to sustain and grow our business. Whether, or the terms on which, new parties or the parties with existing contracts wish to enter into, continue or terminate such contracts will depend in part on whether our current or future products, services or technologies are technologically and commercially effective and provide appealing or competitive features and capabilities. We expect to face continuing and increased technical and commercial competition for the products, services and technologies we seek to provide, and there is no assurance that the parties with which we currently have contracts will continue or extend current contracts on the same or more favorable terms, or that we will obtain alternative or additional contracts for our services and technologies. The failure to do any of these things could materially harm our operating results and financial condition.

Negotiation of the terms of some of these contracts can be very competitive and may not always result in contract terms favorable to us. For example:

Many of our contracts with carriers provide for revenue sharing arrangements, but we have limited control over the prices charged by the carriers for these services. Furthermore, most of these contracts do not provide for guaranteed minimum payments or usage levels. Because most of our carrier contracts are nonexclusive, it is possible that our carrier could purchase similar services from third parties and cease to use our services in the future. As a result, our revenue derived under carrier contracts could be substantially reduced depending on the pricing and usage decisions of the carriers.

- Some of our contracts with carriers require us to incur significant set-up costs prior to the launch of services with that carrier. In addition to current period costs, we may be required to record impairments or other charges in future periods related to our carrier contracts, which would negatively impact our results of operations.

Most of our contracts do not obligate the other party to market or distribute any of our offerings to their customers. Despite the lack of marketing commitments, revenue related to our offerings is, to a large extent, dependent upon the marketing and promotion activities of our carrier, and without this marketing we may not be able to generate the revenue or profit we anticipate from these contracts.

Many of our contracts are short term and many allow for early termination by the other party with or without cause. These contracts are therefore subject to renegotiation of pricing or other key terms that could be adverse to our interests and leave us vulnerable to non-renewal by the other party. The termination, expiration, or non-renewal of a contract could lead to a decrease in future revenues and may cause a decrease or uncertainty in the earnings that we report, adversely affecting our financial results.

Our intercarrier messaging services are used by various carrier partners within the U.S. and internationally. The revenue we earn from these services is derived from a revenue-sharing contract with our service partner, by which we receive a portion of the revenue they collect from their carrier customers for the use of our services. We have limited control over the prices charged by our service partner for our intercarrier messaging services, and the contract does not provide for guaranteed minimum payments or usage levels for our services. As a result, our revenue derived under our contract with our service partner for intercarrier messaging services could be substantially reduced depending on the pricing and usage decisions of the service partner.

Nearly all of our contracts in which we provide to another party services or rights to use our technology include some form of obligation by us to indemnify the other party for certain liabilities and losses incurred by them, including liabilities resulting from third party claims for damages that arise out of the use of our technology. These indemnification terms provide us with certain procedural safeguards, including the right to control the defense of the indemnified party. We have in the past incurred costs to defend and settle such claims. Claims against which we may be obligated to defend others pursuant to our contracts could in the future result in payments that could materially harm our business and financial results.

A majority of the revenue that we generate in our Mobile Services segment is dependent upon our relationships with a few customers, and any deterioration of these relationships could materially harm our revenue. We generate a significant portion of our revenue from sales within our Mobile Services business to a few carrier customers and our music on demand customer in Korea. In the near term, we expect that we will continue to generate a significant portion of our total revenue from these customers. If these customers fail to market or distribute our services or terminate or fail to renew their business contracts with us, or if our relationships with these customers deteriorate in any significant way, we may be unable to replace the affected business arrangements with acceptable alternatives. Failure to maintain our relationships with these customers, or replace them with comparable revenue streams, could have a material negative impact on our revenue or financial results.

We may not be successful in maintaining and growing our distribution of digital media products. Maintaining and growing the distribution of digital media products through our websites and our other distribution channels has historically been important to our business, including growth through the introduction of new products and services distributed through these channels. Consumers are not downloading and using our digital media products consistent with past usage, so our ability to generate revenue from those products has been, and we expect will be continue to be, reduced, leading to lower than expected adoption of newly introduced products and services. Our inability to maintain continued high volume distribution of our digital media products could also continue to hold back the growth and development of related revenue streams from these market segments, including the distribution of third-party products and sales of our subscription services, and therefore harm our business and our prospects. Our revenue from the distribution of third-party products will also continue to be negatively impacted if those products are not more widely downloaded and used by consumers, including due to the relative market saturation of such products. Most of our revenue from the distribution of third-party products has historically been derived from a single customer, and the terms of this relationship have significantly changed since the third quarter of 2014. Our distribution revenue has been, and may continue to be, materially negatively impacted by these factors and we cannot guarantee that future revenue will rebound to historical levels.

Our operating results are difficult to predict and may fluctuate, which may contribute to continued weakness in our stock price.

The trading price for our common stock has a history of volatility. As a result of the rapidly changing markets in which we compete, our operating results may fluctuate or continue to decline from period to period, which may contribute to volatility or continued weakness of our stock price.

In past periods, our operating results have been affected by personnel reductions and related restructuring charges, lease exit and related charges, other one-time events, and impairment charges for certain of our equity investments, goodwill and other long-lived assets. In addition to these factors, the general difficulty in forecasting our operating results and metrics could result in actual results that differ significantly from expected results, causing volatility and continued weakness in our stock price.

Certain of our product and service investment decisions (for example, research and development and sales and marketing efforts) are based on predictions regarding business and the markets in which we compete. Fluctuations in our operating results, particularly when experienced beyond what we expected, could cause the trading price of our stock to fluctuate. Weakness in our operating performance is likely to cause continued weakness in our stock price.

Any impairment to our goodwill and definite-lived assets could result in a significant charge to our earnings.

In accordance with accounting principles generally accepted in the United States, we are required to test goodwill for possible impairment on an annual basis based upon a fair value approach, or more frequently in the event of certain indications of possible impairment. We review definite-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of such assets may not be recoverable. These events or circumstances could include a significant change in

the business climate, including a significant sustained decline in a reporting unit's market value, changes in our operating plans and forecasts, legal factors, operating performance indicators, competition, sale or disposition of a significant portion of our business, a significant sustained decline in our market capitalization and other factors. If we were to determine that an impairment had occurred, we would be required to record an impairment charge, which could have a significant negative, and unpredicted, impact on our financial results. The total carrying value of our goodwill and definite-lived assets as of December 31, 2016 was \$19 million.

Continued loss of revenue from our subscription services may continue to harm our operating results. Our operating results have been and may continue to be adversely impacted by the loss of subscription revenue related to our more traditional products and services. Subscribers may cancel their subscriptions to our services for many reasons, including a perception that they do not use the services sufficiently or that the service does not provide enough value, a lack of attractive or exclusive content generally or as compared with competitive service offerings, or because customer service issues are not satisfactorily resolved. Revenue from our SuperPass subscription service, for example, has continued to decline over several periods, due to changes in consumer preferences and changes on our part to focus on other products and services we offer, and we expect these trends to continue.

Government regulation of the Internet is evolving, and unfavorable developments could have an adverse effect on our operating results.

We are subject to regulations and laws specific to the marketing, sale and delivery of goods and services over the Internet. These laws and regulations, which continue to evolve, cover taxation, user privacy, data collection and protection, copyrights, electronic contracts, sales procedures, automatic subscription renewals, credit card processing procedures, consumer protections, digital games distribution, broadband Internet access and content restrictions. We cannot guarantee that we have been or will be fully compliant in every jurisdiction, as it is not entirely clear how existing laws and regulations governing issues such as privacy, taxation and consumer protection apply or will be enforced with respect to the products and services we sell through the Internet. Moreover, as Internet commerce continues to evolve, increasing regulation and/or enforcement efforts by federal, state and foreign agencies and the prospects for private litigation claims related to our data collection, privacy policies or other e-commerce practices become more likely. In addition, the adoption of any laws or regulations or the imposition of other legal requirements that adversely affect our ability to market, sell, and deliver our products and services could decrease our ability to offer or customer demand for our service offerings, resulting in lower revenue. Future regulations, or changes in laws and regulations or their existing interpretations or applications, could also require us to change our business practices, raise compliance costs or other costs of doing business and result in additional historical or future liabilities for us, resulting in adverse impacts on our business and our operating results.

As a consumer-facing business, we receive complaints from our customers regarding our consumer marketing efforts and our customer service practices. Some of these customers may also complain to government agencies, and from time to time, those agencies have made inquiries to us about these practices. In addition, we may receive complaints or inquiries directly from governmental agencies that have not been prompted by consumers. In May of 2012, we resolved an investigation and complaint filed against us by the Washington State Office of the Attorney General, or Washington AG, relating to our consumer marketing practices through the entry of a consent decree filed in King County, Washington Superior Court. While we resolved that matter, we cannot provide assurance that the Washington AG or other governmental agencies will not bring future claims regarding our marketing, or consumer services or other practices.

We face financial and operational risks associated with doing business in non-U.S. jurisdictions and operating a global business, that have in the past and could in the future have a material adverse impact on our business, financial condition and results of operations.

A significant portion of our revenue is derived from sales outside of the U.S. and most of our employees are located outside of the U.S.. Consequently, our business and operations depend significantly on global and national economic conditions and on applicable trade regulations and tariffs. The growth of our business is also dependent in part on successfully managing our international operations. Our non-U.S. sales, purchases and operations are subject to risks

inherent in conducting business abroad, many of which are outside our control, including the following:

- periodic local or geographic economic downturns and unstable political conditions;
- price and currency exchange controls;
- fluctuation in the relative values of currencies;
- difficulty in repatriating money, whether as a result of tax laws or otherwise;

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- compliance with current and changing tax laws, and the coordination of compliance with U.S. tax laws and the laws of any of the jurisdictions in which we do business;
- difficulties protecting intellectual property;
- compliance with labor laws and other laws governing employees;
- local labor disputes;
- changes in trading policies, regulatory requirements, tariffs and other barriers, or the termination or renegotiation of existing trade agreements;
- impact of changes in immigration or other policies impacting our ability to attract, hire, and retain key talent; and
- difficulties in managing a global enterprise, including staffing, collecting accounts receivable, and managing suppliers, distributors and representatives.

Because consumers may consider the purchase of our digital entertainment products and services to be a discretionary expenditure, their decision whether to purchase our products and services may be influenced by macroeconomic factors that affect consumer spending such as unemployment, access to credit, negative financial news, and declines in income. In addition, mobile telecommunication carriers and other business partners may reduce their business or advertising spending with us or for our products and services they distribute to users in the face of adverse macroeconomic conditions, such as financial market volatility, government austerity programs, tight credit, and declines in asset values. We have in the past recorded material asset impairment charges due in part to weakness in the global economy, and we may need to record additional impairments to our assets in future periods in the event of renewed weakness and uncertainty in the global or a relevant national economy. Accordingly, any significant weakness in the national and/or global economy could materially impact our business, financial condition and results of operations in a negative manner.

Our international operations involve risks inherent in doing business globally, including difficulties in managing operations due to distance, language, and cultural differences, local economic conditions, different or conflicting laws and regulations, taxes, and exchange rate fluctuations. The functional currency of our foreign subsidiaries is the local currency of the country in which each subsidiary operates. We translate our subsidiaries' revenues into U.S. dollars in our financial statements, and continued volatility in foreign exchange rates, particularly if the U.S. dollar strengthens against the euro or the Korean won, may result in lower reported revenue or net assets in future periods. If we do not effectively manage any of the risks inherent in running our international businesses, our operating results and financial condition could be harmed.

Our business is conducted in accordance with existing international trade relationships, and trade laws and regulations. Changes in geopolitical relationships and laws or policies governing the terms of foreign trade could create uncertainty regarding our ability to operate and conduct commercial relationships in affected jurisdictions, which could have a material adverse effect on our business and financial results. Additionally, our global operations may also be adversely affected by political events, domestic or international terrorist events and hostilities or complications due to natural or human-caused disasters. These uncertainties could have a material adverse effect on the continuity of our business and our results of operations and financial condition.

Rhapsody could continue to recognize losses, or we may modify our relationship with Rhapsody in ways which could negatively impact our results of operations and financial condition, or the perceived value of our common stock.

On March 31, 2010, we completed the restructuring of our digital audio music service joint venture, Rhapsody America LLC. As a result of the restructuring, we no longer have operational control over Rhapsody and Rhapsody's operating performance is no longer consolidated with our consolidated financial statements. We disclose only limited strategic, business and financial information regarding Rhapsody in our financial statements and disclosures, in accordance with generally accepted accounting principles applicable in the U.S.. Rhapsody has generated accounting losses since its inception. We have recognized losses on our investment in the convertible preferred stock of Rhapsody since the restructuring. We continue to track additional losses incurred by Rhapsody whether or not we recognize them. In certain circumstances, proper accounting treatment may cause us to recognize additional losses on our investment in Rhapsody. Consequently, Rhapsody's past or future performance may have an adverse effect on our

financial condition, results of operations, or perceived value. See Note 4. Rhapsody Joint Venture, in this form 10-K, for further discussion of our relationship with Rhapsody, including information about the accounting treatment related to the investment in Rhapsody.

As a significant shareholder of Rhapsody we may be requested to assist Rhapsody in various financial or operational ways. In particular, we may be required to decide whether or not it is in the long term interests of RealNetworks to take an action with respect to Rhapsody. These actions may include, among others, an additional loan or investment which may reduce our available cash or liquidity, or result in the recognition of additional losses associated with our investment in Rhapsody. The extent of any such potential request for assistance is likely to be influenced by whether Rhapsody experiences a decline or does not succeed in growing or improving its business or its financial condition. Some or all of our decisions or actions related to Rhapsody could have, or increase the risk to us of, an adverse effect on our financial

condition, results of operations or perceived value.

We depend on timely financial information from Rhapsody in order to timely prepare and file our periodic SEC reports.

Given the current proportion of the outstanding equity of Rhapsody that we hold, we need to receive Rhapsody's unaudited quarterly financial statements and related information in order to timely prepare our quarterly consolidated financial statements and also to report certain of Rhapsody's financial results, as may be required, in our quarterly reports on Form 10-Q. In addition, under certain circumstances, we may be required to include Rhapsody's annual audited financial statements in our annual report on Form 10-K in future periods. As we no longer exert operational control over Rhapsody, we cannot guarantee that Rhapsody will deliver its financial statements and related information to us in a timely manner, or at all, or that the unaudited financial statement information provided by Rhapsody will not contain inaccuracies that are material to our reported results. Any failure to timely obtain Rhapsody's quarterly financial statements or to include its audited financial statements in our future annual reports on Form 10-K, if required, could cause our reports to be filed in an untimely manner, which would preclude us from utilizing certain registration statements and could negatively impact our stock price. See Note 4. Rhapsody Joint Venture, for further information related to our investment in Rhapsody.

The continued loss of key personnel, or difficulty recruiting and retaining them, could significantly harm our business or jeopardize our ability to meet our growth objectives.

Our success depends substantially on the contributions and abilities of certain key executives and employees. We have experienced a significant amount of executive-level turnover in the past several years, which has had and could continue to have a negative impact on our ability to retain key employees. Rob Glaser, our founder, Chairman and initial chief executive officer, resigned as chief executive officer in 2010, was appointed as interim chief executive officer in July 2012, and was named permanent chief executive officer in July 2014. In addition, each member of our executive team was either hired or promoted to his or her executive position within the past four years. We cannot provide assurance that we will effectively manage these executive-level transitions, which may impact our ability to retain key executives and employees and which could harm our business and operations to the extent there is customer or employee uncertainty arising from such transitions.

Our success is also substantially dependent upon our ability to identify, attract and retain highly skilled management, technical and sales personnel. Qualified individuals are in high demand and competition for such qualified personnel in our industry, particularly engineering talent, is extremely intense, and we may incur significant costs to attract or retain them. Changes in immigration or other policies in the U.S. or other jurisdictions that make it more difficult to hire and retain key talent, or to assign individuals to any of our locations as needed to meet business needs, could adversely affect our ability to attract key talent or deploy individuals as needed, and thereby adversely affect our business and financial results. In addition, our ability to attract and retain personnel has been and may continue to be made more difficult by the uncertainty created by our executive-level turnover and by our continued restructuring efforts, which have involved reductions in our workforce. There can be no assurance that we will be able to attract and retain the key personnel necessary to sustain our business or support future growth.

Acquisitions and divestitures involve costs and risks that could harm our business and impair our ability to realize potential benefits from these transactions.

As part of our business strategy, we have acquired and sold technologies and businesses in the past and expect that we will continue to do so in the future. The failure to adequately manage transaction costs and address the financial, legal and operational risks raised by acquisitions and divestitures of technology and businesses could harm our business and prevent us from realizing the benefits of these transactions. In addition, we may identify and acquire target companies, but those companies may not be complementary to our current operations and may not leverage our existing infrastructure or operational experience, which may increase the risks associated with completing acquisitions.

Transaction-related costs and financial risks related to completed and potential future purchase or sale transactions may harm our financial position, reported operating results, or stock price. Previous acquisitions have resulted in significant expenses, including amortization of purchased technology, amortization of acquired identifiable intangible

assets and the incurrence of charges for the impairment of goodwill and other intangible assets, which are reflected in our operating expenses. New acquisitions and any potential additional future impairment of the value of purchased assets, including goodwill, could have a significant negative impact on our future operating results. In compliance with accounting principles generally accepted in the United States, we evaluate these assets for impairment at least annually. Factors that may be considered a change in circumstances, indicating that our goodwill or definite-lived assets may not be recoverable, include reduced future revenue and cash flow estimates due to changes in our forecasts, and unfavorable changes to valuation multiples and discount rates due to

changes in the market. If we were to conclude that any of these assets were impaired, we would have to recognize an impairment charge that could significantly impact our financial results.

Purchase and sale transactions also involve operational risks that could harm our existing operations or prevent realization of anticipated benefits from a transaction. These operational risks include:

- difficulties and expenses in assimilating the operations, products, technology, information systems, and/or personnel of the acquired company;
- retaining key management or employees of the acquired company;
- entrance into unfamiliar markets, industry segments, or types of businesses;
- operating, managing and integrating acquired businesses in remote locations or in countries in which we have little or no prior experience;
- diversion of management time and other resources from existing operations;
- impairment of relationships with employees, affiliates, advertisers or content providers of our business or acquired business; and
- assumption of known and unknown liabilities of the acquired company, including intellectual property claims.

We may be unable to adequately protect our proprietary rights or leverage our technology assets, and may face risks associated with third-party claims relating to intellectual property rights associated with our products and services.

Our ability to compete across our businesses partly depends on the superiority, uniqueness and value of our technology, including both internally developed technology and technology licensed from third parties. To protect our proprietary rights, we rely on a combination of patent, trademark, copyright and trade secret laws, confidentiality agreements with our employees and third parties, and protective contractual provisions. Our efforts to protect our intellectual property rights may not assure our ownership rights in our intellectual property, protect or enhance the competitive position of our products, services and technology, or effectively prevent misappropriation of our technology.

From time to time we receive claims and inquiries from third parties alleging that our technology used in our business may infringe the third parties' proprietary rights. These claims, even if not meritorious, could force us to make significant investments of time, attention and money in defense, and give rise to monetary damages, penalties or injunctive relief against us. We may be forced to litigate, to enforce or defend our patents, trademarks or other intellectual property rights, or to determine the validity and scope of other parties' proprietary rights in intellectual property. To resolve or avoid such disputes, we may also be forced to enter into royalty or licensing agreements on unfavorable terms or redesign our product features, services and technology to avoid actual or claimed infringement of misappropriation or technology. Any such dispute would likely be costly and distract our management, and the outcome of any such dispute (such as additional licensing arrangements or redesign efforts) could fail to improve our business prospects or otherwise harm our business or financial results.

Nearly all of our contracts by which we provide to another party services or rights to use our technology include some form of obligation by us to indemnify the other party for certain liabilities and losses incurred by them, including liabilities resulting from third party claims for damages that arise out of the use of our technology. Also, in 2012 we sold most of our patents, including patents that covered streaming media, to Intel Corporation, in a contract by which we agreed to indemnify Intel for certain third-party infringement claims against these patents up to the purchase price we received in the sale. Claims against which we may be obligated to defend others pursuant to our contracts expose us to the same risks and adverse consequences described above regarding claims we may receive directly alleging that our trademarks or technology used in our business may infringe a third party's proprietary rights.

Disputes regarding the validity and scope of patents or the ownership of technologies and rights associated with streaming media, digital distribution, and online businesses are common and likely to arise in the future. We also routinely receive challenges to our trademarks and other proprietary intellectual property that we are using in our business activities. We are likely to continue to receive claims of third parties against us, alleging contract breaches, infringement of copyrights or patents, trademark rights, trade secret rights or other proprietary rights, or alleging unfair competition or violations of privacy rights.

We believe that our patent portfolio before the sale to Intel may have in the past discouraged third parties from bringing infringement or other claims against us relating to the use of our technologies in our business. Accordingly, we cannot predict whether the sale of these patent assets to Intel will result in additional infringement or other claims against us from third parties.

Our business and operating results will suffer and we may be subject to market risk and legal liability if our systems or networks fail, become unavailable, unsecured or perform poorly so that current or potential users do not have adequate access to our products, services and websites.

Our ability to provide our products and services to our customers and operate our business depends on the continued operation and security of our information systems and networks and those of our service providers. A significant or repeated reduction in the performance, security or availability of our information systems and network infrastructure or that of our service providers could harm our ability to conduct our business, and harm our reputation and ability to attract and retain users, customers, advertisers and content providers. Many of our products are interactive Internet applications that by their very nature require communication between a client and server to operate.

We sell many of our products and services through online sales transactions directly with consumers, and their credit card information is collected and stored by our payment processors. The systems of our third party service providers may not prevent future improper access or disclosure of credit card information or personally identifiable information.

We have an extensive privacy policy concerning the collection, use and disclosure of user data involved in interactions between our client, third party payment providers, and server products. A security breach that leads to disclosure of consumer account information, or any failure by us to comply with our posted privacy policy or existing or new privacy legislation, could harm our reputation, impact the market for our products and services, or subject us to litigation. We have on occasion experienced system errors and failures that caused interruption in availability of products or content or an increase in response time. Problems with our systems and networks, or the third party systems and networks that we utilize, could result from a failure to adequately maintain and enhance these systems and networks, natural disasters and similar events, power failures, intentional actions to disrupt systems and networks and many other causes. Many of our services do not currently have fully redundant systems or a formal disaster recovery plan, and we may not have adequate business interruption insurance to compensate us for losses that may occur from a system outage.

Changes in regulations applicable to the Internet and e-commerce that increase the taxes on the services we provide could materially harm our business and operating results.

As Internet commerce continues to evolve, increasing taxation by state, local or foreign tax authorities becomes more likely. For example, taxation of electronically delivered products and services or other charges imposed by government agencies may also be imposed. We believe we collect transactional taxes and are compliant and current in all jurisdictions where we believe we have a collection obligation for transaction taxes. Any regulation imposing greater taxes or other fees for products and services could result in a decline in the sale of products and services and the viability of those products and services, harming our business and operating results. A successful assertion by one or more states or foreign tax authorities that we should collect and remit sales or other taxes on the sale of our products or services could result in substantial liability for past sales.

In those countries where we have a tax obligation, we collect and remit value added tax, or VAT, on sales of “electronically supplied services” provided to European Union residents. The collection and remittance of VAT subjects us to additional currency fluctuation risks.

We may be subject to additional income tax assessments and changes in applicable tax regulations could adversely affect our financial results.

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes, income taxes payable, and net deferred tax assets. In the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different than that which is reflected in our historical financial statements. An audit or litigation can result in significant additional income taxes payable in the U.S. or foreign jurisdictions which could have a material adverse effect on our financial condition and results of operations.

The U.S. is considering corporate tax reform that may significantly change the corporate tax rate and U.S. international tax rules. Additionally, longstanding international tax norms that determine each country’s jurisdiction to tax cross-border international trade are evolving. Given the unpredictability of these possible changes and their

potential interdependency, it is very difficult to assess whether the overall effect of such potential tax changes would be cumulatively positive or negative for our earnings and cash flow, but such changes could adversely impact our financial results.

Our Chairman of the Board and Chief Executive Officer beneficially owns approximately 36% of our stock, which gives him significant control over certain major decisions on which our shareholders may vote or which may discourage an acquisition of us.

Robert Glaser, our Chairman of the Board and Chief Executive Officer, beneficially owns approximately 36% of our common stock. As a result, Mr. Glaser and his affiliates will have significant influence to:

- elect or defeat the election of our directors;
- amend or prevent amendment of our articles of incorporation or bylaws;
- effect or prevent a merger, sale of assets or other corporate transaction; and
- control the outcome of any other matter submitted to the shareholders for vote.

The stock ownership of Mr. Glaser and his affiliates may discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of RealNetworks, which in turn could reduce our stock price or prevent our shareholders from realizing a premium over our stock price.

Provisions of our charter documents, shareholder rights plan, and Washington law could discourage our acquisition by a third party.

Our articles of incorporation provide for a strategic transactions committee of the board of directors. Without the prior approval of this committee, and subject to certain limited exceptions, the board of directors does not have the authority to:

- adopt a plan of merger;
- authorize the sale, lease, exchange or mortgage of assets representing more than 50% of the book value of our assets prior to the transaction or on which our long-term business strategy is substantially dependent;
- authorize our voluntary dissolution; or
- take any action that has the effect of any of the above.

Mr. Glaser has special rights under our articles of incorporation to appoint or remove members of a strategic transactions committee at his discretion that could make it more difficult for RealNetworks to be sold or to complete another change of control transaction without Mr. Glaser's consent. RealNetworks has also entered into an agreement providing Mr. Glaser with certain contractual rights relating to the enforcement of our charter documents and Mr. Glaser's roles and authority within RealNetworks. These rights and his role as Chairman of the Board of Directors, together with Mr. Glaser's significant beneficial ownership, create unique potential for concentrated influence of Mr. Glaser over potentially material transactions involving RealNetworks and decisions regarding the future strategy and leadership of RealNetworks.

We have adopted a shareholder rights plan, which was amended and restated in December 2008, and amended in April 2016, which provides that shares of our common stock have associated preferred stock purchase rights. The exercise of these rights would make the acquisition of RealNetworks by a third party more expensive to that party and has the effect of discouraging third parties from acquiring RealNetworks without the approval of our board of directors, which has the power to redeem these rights and prevent their exercise.

Washington law imposes restrictions on some transactions between a corporation and certain significant shareholders. The foregoing provisions of our charter documents, shareholder rights plan, our agreement with Mr. Glaser, and Washington law, as well as our charter provisions that provide for a classified board of directors and the availability of "blank check" preferred stock, could have the effect of making it more difficult or more expensive for a third party to acquire, or of discouraging a third party from attempting to acquire, control of us. These provisions may therefore have the effect of limiting the price that investors might be willing to pay in the future for our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate and administrative headquarters and certain research and development and sales and marketing personnel are located at our facility in Seattle, Washington.

We lease properties primarily in the following locations that are utilized by all of our business segments, unless otherwise noted below, to house our research and development, sales and marketing, and general and administrative personnel:

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Location	Area leased (sq. feet)	Lease expiration
Seattle, Washington (1)	86,000	August 2024, with an option to renew for two five-year periods
Eindhoven, Netherlands (2)	23,000	June 2022

As of December 31, 2016, we have reduced our use of the facility by 69%. The space which we no longer occupy (1) is currently under sublease for all or a portion of the remaining lease term. For further information, please see Note 11. Lease Exit and Related Charges in this 10-K.

(2) This facility is utilized only by our Games segment.

In addition, we lease smaller facilities in the U.S. and foreign countries, some of which support the operations of all of our business segments while others are dedicated to a specific business segment. We believe that our properties are in good condition, adequate and suitable for the conduct of our business. For additional information regarding our obligations under leases, see Note 16. Commitments and Contingencies, in this 10-K.

Item 3. Legal Proceedings

See Note 16. Commitments and Contingencies, in this 10-K.

Item 4. Mine Safety Disclosures

Not applicable.

PART II.

Item 5. Market for Registrant’s Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

Our common stock is traded on The NASDAQ Stock Market under the symbol RNWK.

The high and low intraday sales prices for our common stock were as follows:

	Years Ended December 31,			
	2016		2015	
	High	Low	High	Low
First Quarter	\$4.43	\$3.04	\$7.24	\$6.50
Second Quarter	4.65	4.00	7.15	5.40
Third Quarter	5.10	3.97	5.86	3.75
Fourth Quarter	5.14	4.09	4.50	3.75

As of January 31, 2017, there were approximately 175 holders of record of our common stock. Most shares of our common stock are held by brokers and other institutions on behalf of shareholders.

The declaration and payment of any future dividends, as well as the amount thereof, are subject to the discretion of our board of directors and will depend upon our results of operations, financial condition, capital levels, cash requirements, future prospects and other factors deemed relevant by our board of directors. Accordingly, there can be no assurance that we will declare and pay any dividends in the future. No cash dividends were paid in 2016 or 2015.

Comparison of 5 year cumulative total return to shareholders on RealNetworks, Inc., common stock with the cumulative total return on the NASDAQ Composite Index and the Dow Jones U.S. Technology Index for the period beginning on December 31, 2011 and ended on December 31, 2016.

The total return on our common stock and each index assumes the value of each investment was \$100 on December 31, 2011, and that all dividends were reinvested. Return information is historical and not necessarily indicative of future performance.

Item 6. Selected Financial Data

The following selected consolidated financial data should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the Consolidated Financial Statements and Notes to Consolidated Financial Statements included elsewhere in this report.

	Years Ended December 31,				
	2016	2015	2014	2013	2012
	(In thousands, except per share data)				
Consolidated Statements of Operations Data:					
Net revenue	\$120,468	\$125,296	\$156,212	\$206,196	\$258,842
Cost of revenue	64,968	70,297	76,381	79,091	103,731
Extinguishment of liability	—	—	(10,580)	—	—
Gross profit	55,500	54,999	90,411	127,105	155,111
Sale of patents and other technology assets, net of costs	—	—	—	—	116,353
Operating expenses:					
Research and development	29,923	43,626	52,765	60,880	63,194
Sales and marketing	31,608	48,231	66,926	80,011	90,301
General and administrative	27,415	24,549	34,001	36,643	43,891
Restructuring and other charges	1,489	5,279	4,992	5,765	15,225
Lease exit and related charges (gains)	2,239	2,501	880	3,089	3,290
Loss on litigation settlements	—	—	—	11,525	—
Total operating expenses	92,674	124,186	159,564	197,913	215,901
Operating income (loss)	(37,174)	(69,187)	(69,153)	(70,808)	55,563
Other income (expense), net (A)	1,746	(13,494)	(1,382)	16,721	1,796
Income (loss) before income taxes	(35,428)	(82,681)	(70,535)	(54,087)	57,359
Income tax expense (benefit)	1,122	(834)	1,280	4,903	12,518
Net income (loss) attributable to common shareholders	\$(36,550)	\$(81,847)	\$(71,815)	\$(58,990)	\$44,841
Diluted net income (loss) per share attributable to common shareholders	\$(0.99)	\$(2.26)	\$(2.00)	\$(1.66)	\$1.28
Shares used to compute diluted net income (loss) per share	36,781	36,165	35,947	35,553	35,122

(A) Includes a \$21.4 million pretax gain from the sale of equity securities in 2013. Additional details regarding this gain are available in our 2015 10-K.

	As of December 31,				
	2016	2015	2014	2013	2012
	(In thousands)				
Consolidated Balance Sheets Data:					
Cash, cash equivalents, and short-term investments	\$77,052	\$99,129	\$161,706	\$226,155	\$271,414
Working capital	66,304	91,373	136,429	191,522	237,646
Total assets	130,437	161,343	250,299	342,781	433,897
Shareholders’ equity	88,581	120,683	197,198	268,981	342,728

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

RealNetworks creates innovative applications and services that make it easy to connect with and enjoy digital media. Following a reorganization that took effect in the first quarter of 2016, we manage our business and report revenue and operating income (loss) in three segments: (1) Consumer Media (2) Mobile Services, and (3) Games.

Within our Consumer Media segment, revenue is derived from the sales of our PC-based RealPlayer® products, including RealPlayer Plus and related products, and from the licensing of our intellectual property, primarily our codec technology, including our recently introduced RealMedia High Definition, or RMHD, technology. These products and services are delivered directly to consumers and through partners, such as OEM's and mobile device manufacturers.

Our Mobile Services business generates revenue primarily from the sale of its SaaS services, which include ringback tones, music on demand, and intercarrier messaging. This business also includes revenue related to RealTimes®, our photo and video sharing application that is primarily sold through mobile telecommunication carriers and related partners, which we introduced in May of 2015.

Our Games business, through its GameHouse and Zylom brands, derives revenue from sales of mobile games, games licenses, online games subscription services, and advertising on games sites.

We sold the Slingo and social casino portion of our games business to Gaming Realms plc, a London-based online gaming company, for \$18.0 million in August 2015. The purpose of the sale was to derive value from this business and to allow greater focus on our traditional casual games business. This transaction is further described in Note 3. Acquisitions and Disposals, to the consolidated financial statements included in Item 8 of Part II of this Form 10-K. We allocate certain corporate expenses which are directly attributable to supporting our businesses, including but not limited to a portion of finance, legal, human resources and headquarters facilities, to our reportable segments.

Remaining expenses, which are not directly attributable to supporting the business, are reported as corporate items. These corporate items include restructuring charges, lease exit and related charges, as well as stock compensation expense. Concurrent with the first quarter 2016 segment change described above, we also changed our expense allocation methodology to increase accountability, resulting in an increase in corporate costs allocated to the Consumer Media and Mobile Services businesses. The historical financial information presented below has been recast to reflect the new corporate expense allocation.

In 2016 our consolidated revenue declined by \$4.8 million compared with 2015, due to a \$5.6 million decrease in Games revenue, of which \$4.9 million is related to the Slingo and social casino business that was sold in August of 2015, and a decrease of \$3.6 million in Consumer Media revenue. These decreases were offset, in part, by an increase of \$4.3 million in Mobile Services revenue. See below for further information regarding fluctuations by segment.

As of December 31, 2016, we had \$77.1 million in unrestricted cash, cash equivalents and short-term investments, compared to \$99.1 million as of December 31, 2015. The 2016 decrease of cash, cash equivalents, and short-term investments from December 31, 2015 was due primarily to our ongoing cash flows used in operating activities.

In addition to our revenue growth plans, we have continued to reduce costs and better align our operating expenses with our revenue profile through various restructuring actions, as described below in Consolidated Operating Expenses. These actions drove the \$31.5 million decline in our operating expenses during 2016 compared to 2015.

Summary of Results

Consolidated results of operations were as follows (dollars in thousands):

	2016	2015	2014	2016-2015	%	2015-2014	%
				Change	Change	Change	Change
Total revenue	\$120,468	\$125,296	\$156,212	\$(4,828)	(4)%	\$(30,916)	(20)%
Cost of revenue	64,968	70,297	76,381	(5,329)	(8)%	(6,084)	(8)%
Extinguishment of liability	—	—	(10,580)	—	— %	10,580	100 %
Gross profit	55,500	54,999	90,411	501	1 %	(35,412)	(39)%
Gross margin	46 %	44 %	58 %	2 %		(14)%	
Total operating expenses	92,674	124,186	159,564	(31,512)	(25)%	(35,378)	(22)%
Operating income (loss)	\$(37,174)	\$(69,187)	\$(69,153)	\$32,013	46 %	\$(34)	— %

2016 compared with 2015

Revenue decreased by \$4.8 million, or 4%. The reduction in revenue resulted from a decline of \$5.6 million in our Games segment, and a decline of \$3.6 million in our Consumer Media segment. These declines were offset in part by an increase of \$4.3 million in our Mobile Services segment. For further detail regarding the changes, please see the discussions of segment revenues below. Gross margin increased to 46% from 44%, driven by margin increases in Consumer Media and Mobile Services, offset by decreased margin in our games business due to increased app store fees.

Operating expenses decreased by \$31.5 million as compared to the prior year due to savings of \$11.1 million realized from the sale of the Slingo and social casino games business and from the impact of our continuing cost reduction efforts. These efforts were the primary reason for reductions to personnel and related costs of \$9.3 million, marketing costs of \$7.9 million, restructuring of \$4.1 million and facilities and related depreciation expense, due to the reduction of our corporate office space, of \$2.8 million. These reductions were offset in part by the benefit recognized in the first quarter of 2015 relating to warrants received from Rhapsody, an expense benefit received in 2015 for the release of certain previously accrued sales taxes, and higher stock compensation expense in 2016 resulting from the first quarter 2016 authorization and grant of fully vested equity awards as payment for 2015 incentive bonuses.

2015 compared with 2014

Revenue decreased by \$30.9 million, or 20%. The reduction in revenue resulted from a decline of \$10.5 million in our Consumer Media segment, a decline of \$6.4 million in our Games segment, and a decline of \$14.0 million in our Mobile Services segment. Revenue decreases were due to declining revenue in all three of our segments; subscriptions for our Games business decreased when compared to 2014, but are now stabilizing, and our Consumer Media segment has been negatively impacted by the change in our third party distribution arrangements. Gross margin decreased to 44% from 58%, primarily as a result of our transition to a new third party distribution arrangement in Q2 2014 at significantly lower rates compared to our previous partner and to an increase in our bandwidth expense due to our continued investment in our RealTimes product. Additionally, a higher proportion of lower margin revenue in our music on demand business in Korea and the extinguishment of certain accrued royalty liabilities of \$10.6 million in Q1 2014 both contributed to the decline in gross margin in 2015 when compared with 2014.

Operating expenses decreased by \$35.4 million primarily due to reductions in personnel and related costs of \$24.4 million, reductions in marketing costs of \$7.4 million, and lower facilities and infrastructure related expenses of \$2.0 million.

Segment Operating Results

Consumer Media

Consumer Media segment results of operations were as follows (dollars in thousands):

	2016	2015	2014	2016-2015	%	2015-2014	%
				Change	Change	Change	Change
Total revenue	\$25,051	\$28,613	\$39,121	\$(3,562)	(12)%	\$(10,508)	(27)%
Cost of revenue	7,074	13,257	13,466	(6,183)	(47)%	(209)	(2)%
Gross profit	17,977	15,356	25,655	2,621	17%	(10,299)	(40)%
Gross margin	72%	54%	66%	18%		(12)%	
Total operating expenses	18,399	26,526	41,950	(8,127)	(31)%	(15,424)	(37)%
Operating income (loss)	\$(422)	\$(11,170)	\$(16,295)	\$10,748	96%	\$5,125	31%

2016 compared with 2015

Total Consumer Media revenue in 2016 decreased by \$3.6 million, or 12% as compared to the prior year. Of the decrease, \$2.2 million is due primarily to the timing of contracts and contract renewals for intellectual property licenses. Continuing declines in our subscription products of \$1.5 million also contributed to the decrease in Consumer Media revenue.

Cost of revenue decreased by \$6.2 million, resulting in an increase in gross margin of 18 percentage points. The decrease to cost of revenue was driven by lower bandwidth costs of \$3.8 million, as well as a reduction in salaries and personnel expenses of \$1.0 million and customer support costs of \$0.4 million.

Operating expenses decreased by \$8.1 million compared to the prior year. The decrease was primarily due to reductions in salaries and personnel costs of \$4.5 million, marketing costs of \$2.4 million and professional services of \$1.5 million.

2015 compared with 2014

Total Consumer Media revenue decreased by \$10.5 million, or 27%. This decrease was primarily due to our 2014 transition to a new third party distribution arrangement at significantly lower rates compared to our previous partner. This transition caused our third party distribution revenue to decrease by \$8.8 million when compared to 2014. Our SuperPass subscription revenue declined by \$2.6 million due to fewer subscribers for this legacy product line and RealPlayer license revenue decreased by \$1.6 million. These declines in revenue were offset in part by a \$2.1 million increase in our IP licensing business.

Gross margin decreased by 12 percentage points, due primarily to our transition to a new third party distribution arrangement at significantly lower rates compared to our previous partner and an increase in bandwidth expenses associated with our cloud-based products.

Operating expenses decreased by \$15.4 million primarily due to decreased personnel and related expenses of \$7.1 million and a reduction in marketing expenses of \$7.3 million, mainly related to our third party distribution arrangements.

Mobile Services

Mobile Services segment results of operations were as follows (dollars in thousands):

	2016	2015	2014	2016-2015 Change	% Change	2015-2014 Change	% Change
Total revenue	\$70,278	\$65,935	\$79,981	\$4,343	7 %	\$(14,046)	(18)%
Cost of revenue	50,026	47,834	52,193	2,192	5 %	(4,359)	(8)%
Gross profit	20,252	18,101	27,788	2,151	12 %	(9,687)	(35)%
Gross margin	29	% 27	% 35	% 2	%	(8)	%
Total operating expenses	34,439	44,311	53,527	(9,872)	(22)%	(9,216)	(17)%
Operating income (loss)	\$(14,187)	\$(26,210)	\$(25,739)	\$12,023	46 %	\$(471)	(2)%

2016 compared with 2015

Mobile Services revenue increased by \$4.3 million, or 7%. The increase was driven by increases of \$6.1 million in our low-margin music on demand business in Korea, as well as an increase of \$1.9 million from system implementations for our carrier partners. These increases were offset in part by a decline in revenue of \$2.2 million in our ringback tones business, as well as \$0.8 million from our Helix product, which we no longer sell.

Gross margin improved by \$2.2 million, or 2 percentage points, as compared to the prior year. The increase is due primarily to savings related to our SaaS service offerings, such as professional services, third-party customer service, ringback tones and from our RealTimes mobile services.

Operating expenses decreased by \$9.9 million due to a decrease in personnel and related expenses of \$4.7 million and in marketing expense of \$4.1 million.

2015 compared with 2014

Mobile Services revenue decreased by \$14.0 million, or 18%. This decrease was due to a decrease of \$7.6 million in our Ringback Tone revenue and a decrease in licensing revenue of \$3.8 million due to the cessation of our Helix business in Q4 2014, as well as declines in our intercarrier messaging business of \$1.3 million.

Gross margin declined by 8 percentage points in 2015, due primarily to a higher proportion of lower margin music on demand revenue, compared to the prior year, as well as additional customer service costs.

Operating expenses decreased by \$9.2 million, due primarily to a reduction in personnel and related expenses of \$8.5 million as well as a decrease in infrastructure expense of \$1.2 million. These decreases were offset in part by an increase to marketing expense of \$1.4 million.

Games

Games segment results of operations were as follows (dollars in thousands):

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	2016	2015	2014	2016-2015 Change	% Change	2015-2014 Change	% Change
Total revenue	\$25,139	\$30,748	\$37,110	\$(5,609)	(18)%	\$(6,362)	(17)%
Cost of revenue	7,919	9,291	11,074	(1,372)	(15)%	(1,783)	(16)%
Gross profit	17,220	21,457	26,036	(4,237)	(20)%	(4,579)	(18)%
Gross margin	68%	70%	70%	(2)%		—	
Total operating expenses	19,644	29,086	37,170	(9,442)	(32)%	(8,084)	(22)%
Operating income (loss)	\$(2,424)	\$(7,629)	\$(11,134)	\$5,205	68%	\$3,505	31%

2016 compared with 2015

Games revenue decreased by \$5.6 million, or 18% as compared to the prior year. Of the total decline, \$4.9 million is related to the sale of our Slingo and social casino business in August of 2015, as well as a decrease of \$1.4 million in our subscription game business and \$1.0 million in retail games. These declines were offset in part by an increase of \$2.1 million due to growth in our mobile games business.

Cost of revenue decreased by \$1.4 million, or 15%, as compared to the prior year, due to savings of \$2.0 million realized following the sale of the Slingo and social casino games business. This decrease was offset in part by an increase of \$0.7 million in app store fees related to our mobile revenue growth in the casual games business.

Operating expenses decreased by \$9.4 million, or 32%. This reduction in operating expenses was due to savings of \$11.1 million from the 2015 sale of our Slingo and social casino games business. These decreases were partially offset by increases of \$2.3 million for salaries and related personnel costs from our continuing casual games business.

2015 compared with 2014

Games revenue decreased by \$6.4 million, or 17%. \$1.9 million of the total decline in revenue related to the sale of our Slingo and social casino business in August of 2015. The remaining decline of \$4.5 million was primarily due to a decrease in subscription revenue. The revenues for PC download games and advertising also declined compared to the prior year but were almost entirely offset by an increase in mobile casual games revenue.

Cost of revenue decreased by \$1.8 million, or 16%. \$0.9 million of the total decline in cost of revenue is attributed to the sale of our Slingo and social casino games business. The remaining \$0.9 million decrease was due to the decline in advertising expense and in partner royalties expense for our PC download and subscription games sales channels.

Operating expenses decreased by \$8.1 million, or 22%. These reductions in operating expenses were driven by the sale of our Slingo and social casino business in August of 2015.

Corporate

We allocate certain corporate expenses which are directly attributable to supporting the business to our reportable segments. These allocated corporate expenses include, but are not limited to a portion of finance, legal, human resources and headquarters facilities. Remaining expenses, which are not directly attributable to supporting the business, are reported as corporate items. All restructuring, extinguishment of liability, and lease exit and related charges, are included in the corporate segment.

Corporate segment results of operations were as follows (dollars in thousands):

	2016	2015	2014	2016-2015 Change	% Change	2015-2014 Change	% Change
Cost of revenue	\$(51)	\$(85)	\$(352)	\$34	(40)%	\$267	\$8.28
Equity compensation plans not approved by stockholders (3)	1,104,840		\$0.57	—			

- (1) Represent shares of our Common Stock issuable upon outstanding options issued to employees and directors under our 2003 Stock option Plan.
- (2) Represent shares of our Common Stock issuable upon outstanding options issued to employees and directors under our 1995 Stock Option Plan, as amended. Our 1995 Stock Option Plan expired on June 30, 2005.
- (3) Represent shares of our Common Stock issuable upon outstanding options issued to employees and directors outside of any stock option plan.

New Plan Benefits

Incentive awards under the 2003 Plan are subject to the discretion of the Compensation Committee. Therefore, it is generally not possible to determine the Incentives that will be granted or awarded under the 2003 Plan in the future to any person or the Incentives that would have been granted or awarded if the this amendment to the 2003 Plan had been in effect in the year ended December 31, 2008.

Vote Required to Approve the Amendment to the Certificate of Incorporation

All shares represented by proxies will be voted “ FOR ” the amendment to the 2003 Plan unless a contrary choice is specified. The affirmative vote of the holders of the majority of the shares present in person or represented by proxy and entitled to vote at the Annual Meeting is required to amend the 2003 Plan. If you “Abstain” from voting, it will have the same effect as an “Against” vote. “Broker non-votes,” which occur when brokers are prohibited from exercising discretionary voting authority for beneficial owners who have not provided voting instructions, will not be counted for the purpose of determining the number of shares present in person or by proxy on a voting matter and will have no effect on the outcome of the vote.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE “ FOR ” THE AMENDMENT TO THE 2003 PLAN.

PROPOSAL NO. 4:

TO RATIFY THE APPOINTMENT OF
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

This Proposal 5 requests our stockholders to ratify the selection of J.H. Cohn LLP as our independent registered public accounting firm for the year ending December 31, 2009. The Audit Committee of our Board of Directors has appointed J.H. Cohn LLP as our independent registered public accounting firm for the year ending December 31, 2009. J.H. Cohn has performed this function for us commencing with the fiscal year ended December 31, 2002. We expect that representatives of J.H. Cohn will be in attendance at the Annual Meeting, will have an opportunity to make a statement if they so desire, and will be available to respond to appropriate questions.

Fees Billed by Its Independent Registered Public Accounting Firm

The following is a summary of the fees billed to us by J.H. Cohn LLP, our independent registered public accounting firm, for professional services rendered for fiscal years ended December 31, 2008 and 2007:

Fee Category	J.H. Cohn LLP	
	Fiscal 2008 Fees	Fiscal 2007 Fees
Audit Fees	\$ 149,818	\$ 103,940
Audit-Related Fees (1)	29,403	11,520
Tax Fees (2)	12,500	18,708
All Other Fees (3)	-	-
Total Fees	\$ 191,721	\$ 134,168

(1) Audit-Related Fees consist principally of assurance and related services that are reasonably related to the performance of the audit or review of our financial statements but not reported under the caption "Audit Fees." These fees include review of registration statements.

(2) Tax Fees consist of fees for tax compliance, tax advice and tax planning.

(3) All Other Fees consist of aggregate fees billed for products and services provided by the independent registered public accounting firm, other than those disclosed above.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

At present, our audit committee approves each engagement for audit or non-audit services before we engage our independent registered public accounting firm to provide those services. Our audit committee has not established any pre-approval policies or procedures that would allow our management to engage our independent registered public accounting firm to provide any specified services with only an obligation to notify the audit committee of the engagement for those services. None of the services provided by our independent registered public accounting firm for fiscal 2008 was obtained in reliance on the waiver of the pre-approval requirement afforded in SEC regulations.

Vote Required to Ratify the Appointment of J.H. Cohn

All shares represented by proxies will be voted “ FOR ” the ratification of JH Cohn LLP as our independent registered public accounting firm unless a contrary choice is specified. Ratification of J.H. Cohn LLP’s appointment as our independent registered public accounting firm for the fiscal year 2009 requires the affirmative vote of the holders of a majority of the voting power of the outstanding shares of common stock, present and entitled to vote at the Annual Meeting. A stockholder who abstains with respect to this proposal is considered to be present and entitled to vote on this proposal at the Annual Meeting, and is in effect casting a negative vote, but a stockholder (including a broker) who does not give authority to a proxy to vote, or withholds authority to vote on this proposal, shall not be considered present and entitled to vote on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” RATIFICATION OF THE APPOINTMENT OF THE INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.

OTHER MATTERS

Certain Transactions and Relationships

The Hedrin JV

We and Nordic Biotech Venture Fund II K/S, or Nordic, entered into a joint venture agreement on January 31, 2008, which was amended on February 18, 2008 and on June 9, 2008. Pursuant to the joint venture agreement, in February 2008, (i) Nordic contributed cash in the amount of \$2.5 million to H Pharmaceuticals K/S (formerly Hedrin Pharmaceuticals K/S), a newly formed Danish limited partnership, or the Hedrin JV, in exchange for 50% of the equity interests in the Hedrin JV, and (ii) we contributed certain assets to North American rights (under license) to our Hedrin product to the Hedrin JV in exchange for \$2.0 million in cash and 50% of the equity interests in the Hedrin JV. On or around June 30, 2008, in accordance with the terms of the joint venture agreement, Nordic contributed an additional \$1.25 million in cash to the Hedrin JV, \$1.0 million of which was distributed to us and equity in the Hedrin JV was distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%.

Pursuant to the joint venture agreement, upon the classification by the U.S. Food and Drug Administration, or the FDA, of Hedrin as a Class II or Class III medical device, Nordic was required to contribute to the Hedrin JV an additional \$1.25 million in cash, \$0.5 million of which was to be distributed to us and equity in the Hedrin JV was to be distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%. The FDA notified the Hedrin JV that Hedrin has been classified as a Class III medical device and in February 2009, Nordic made the \$1.25 million investment in the Hedrin JV, the Hedrin JV made the \$0.5 million milestone payment to us and equity in the Hedrin JV was distributed to us and Nordic sufficient to maintain our respective ownership interests at 50%. In accordance with the terms of the joint venture agreement, the Hedrin JV has received a total of \$1.5 million cash to be applied toward the development and commercialization of Hedrin in North America.

The Hedrin JV will be responsible for the development and commercialization of Hedrin for the North American market and all associated costs including clinical trials, if required, regulatory costs, patent costs, and future milestone payments owed to Thornton & Ross Ltd., or T&R, the licensor of Hedrin. The Hedrin JV will engage us to provide management services to the Hedrin JV in exchange for an annualized management fee, which for 2008, on an annualized basis, is \$527,000. The profits of the Hedrin JV will be shared by us and Nordic in accordance with our respective equity interests in the Hedrin JV, of which we each currently hold 50%, except that Nordic is entitled to receive a minimum return each year from the Hedrin JV equal to 6% on Hedrin sales, as adjusted for any change in Nordic's equity interest in the Hedrin JV, before any distribution is made to us. If the Hedrin JV realizes a profit in excess of the Nordic minimum return in any year, then such excess shall first be distributed to us until our distribution and the Nordic minimum return are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. However, in the event of a liquidation of the Hedrin JV, Nordic's distribution in liquidation must equal the amount Nordic invested in the Hedrin JV (\$5 million) plus 10% per year, less the cumulative distributions received by Nordic from the Hedrin JV before any distribution is made to us. If the Hedrin JV's assets in liquidation exceed the Nordic liquidation preference amount, then any excess shall first be distributed to us until our distribution and the Nordic liquidation preference amount are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. Further, in no event shall Nordic's distribution in liquidation be greater than assets available for distribution in liquidation.

Pursuant to the terms of the joint venture agreement, Nordic has the right to nominate one person for election or appointment to our board of directors. The Hedrin JV's board of directors consists of four members, two members appointed by us and two members appointed by Nordic. Nordic has the right to appoint one of the directors as chairman of the board. The chairman has certain tie breaking powers. In the event that the final payment milestone

described above is not achieved by March 30, 2009, then the Hedrin JV 's board of directors will increase to five members, two appointed by us and three appointed by Nordic.

Pursuant to the joint venture agreement, Nordic has the right to put all or a portion of its interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the amount of Nordic's investment in the Hedrin JV divided by \$0.14, as adjusted from time to time for stock splits and other specified events, multiplied by a conversion factor, which is (i) 1.00 for so long as Nordic's distributions from the Hedrin JV are less than the amount of its investment, (ii) 1.25 for so long as Nordic's distributions from the Hedrin JV are less than two times the amount of its investment but greater than or equal to the amount of its investment amount, (iii) 1.50 for so long as Nordic's distributions from the Hedrin JV are less than three times the amount of its investment but greater than or equal to two times the amount of its investment amount, (iv) 2.00 for so long as Nordic's distributions from the Hedrin JV are less than four times the amount of its investment but greater than or equal to three times the amount of its investment amount and (v) 3.00 for so long as Nordic's distributions from Hedrin JV are greater than or equal to four times the amount of its investment. The put right expires upon the earlier to occur of (i) February 25, 2018 and (ii) 30 days after the date when Nordic's distributions from the Hedrin JV exceed five times the amount Nordic has invested in the Hedrin JV (or 10 days after such date if we have provided Nordic notice thereof).

Pursuant to the joint venture agreement, we have the right to call all or a portion of Nordic's equity interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the portion of Nordic's investment in the Hedrin JV that we call by the dollar amount of Nordic's investment as of such date in the Hedrin JV, divided by \$0.14, as adjusted from time to time for stock splits and other specified events. The call right is only exercisable by us if the price of our common stock has closed at or above \$1.40 per share for 30 consecutive trading days. During the first 30 consecutive trading days in which our common stock closes at or above \$1.40 per share, we may exercise up to 25% of the call right. During the second 30 consecutive trading days in which our common stock closes at or above \$1.40 per share, we may exercise up to 50% of the call right on a cumulative basis. During the third consecutive 30 trading days in which our common stock closes at or above \$1.40 per share, we may exercise up to 75% of the call right on a cumulative basis. During the fourth consecutive 30 days in which our common stock closes at or above \$1.40 per share, we may exercise up to 100% of the call right on a cumulative basis. Nordic may refuse the call, either by paying \$1.5 million multiplied by the percentage of Nordic's investment being called or forfeiting an equivalent portion of the put right, calculated on a pro rata basis for the percentage of the Nordic equity interest called by us. The call right expires on February 25, 2013. For purposes of Nordic's right to put, and our right to call, all or a portion of Nordic's equity interest in the Hedrin JV, the amount of Nordic's investment is currently \$5,000,000.

Issuance of Secured Promissory Notes and Warrants

On September 11, 2008, we issued a secured promissory note in the principal amount of \$12,000 to each of Douglas Abel, our President and Chief Executive Officer and a director of our company; Michael Weiser, a director of our company; Timothy McInerney, a director of our company; Neil Herskowitz, a director of our company, and Michael McGuinness, our Chief Financial Officer and Chief Operating Officer. Principal and interest on the notes are payable in cash on March 10, 2009 unless paid earlier by us. In connection with the issuance of the notes, we issued to each noteholder a 5-year warrant to purchase 24,000 shares of our common stock at an exercise price of \$0.20 per share. We granted to the noteholders a continuing security interest in certain specific refunds, deposits and repayments due to us and expected to be repaid to us in the next several months. The secured 10% notes were repaid in February 2009 along with interest thereon.

We believe that all of the transactions set forth above were made on terms no less favorable to us than could have been obtained from unaffiliated third parties. All such transactions have been reviewed by the audit committee of our Board of Directors and approved by them. All future transactions between us and our officers, directors and principal shareholders and their affiliates will be on terms no less favorable than could be obtained from unaffiliated third parties and will be approved by our audit committee or another independent committee of our Board of Directors.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our officers, directors and persons who are the beneficial owners of more than 10% of our common stock to file with the SEC initial reports of ownership and reports of changes in ownership of our common stock. Officers, directors and beneficial owners of more than 10% of our common stock are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Except as set forth below, based solely on a review of the copies of the Forms 3, 4 and 5 and amendments that we received with respect to transactions during 2008, we believe that all such forms were filed on a timely basis.

Mssrs. Abel, Herskowitz, Hoenlein, McGuinness, McInerney, Steinhart and Weiser each filed a Form 4 was on March 28, 2008; such Form 4s were due on March 27, 2008.

The Board of Directors does not intend to present at the Annual Meeting any other matter not referred to above and does not presently know of any matter that may be presented at the Annual Meeting by others. However, if other matters properly come before the Annual Meeting, it is the intention of the persons named in the enclosed proxies to vote the proxy in accordance with their best judgment.

By Order of the Board of Directors

MANHATTAN PHARMACEUTICALS, INC.

/s/ Michael G. McGuinness

Michael G. McGuinness, Secretary

Appendix A

CERTIFICATE OF AMENDMENT
TO
THE RESTATED CERTIFICATE OF INCORPORATION
OF
MANHATTAN PHARMACEUTICALS, INC.

The undersigned, for purposes of amending the Restated Certificate of Incorporation (the "Certificate") of Manhattan Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

FIRST : The name of the corporation is Manhattan Pharmaceuticals, Inc. (the "Corporation"). The original name of the Corporation was Atlantic Pharmaceutical, Inc. and the date of incorporation was May 18, 1993.

SECOND : The Restated Certificate of Incorporation was filed with the Office of the Secretary of State of the State of Delaware on _____.

THIRD : That Article FOURTH, Section A. of the Restated Certificate is hereby deleted and replaced to read, in its entirety, as follows: "A. The corporation is authorized to issue two classes of stock designated "Common Stock" and "Preferred Stock," respectively. The total number of shares of Common Stock authorized to be issued is 500,000,000, and each such share will have a par value of \$0.001. The total number of shares of Preferred Stock authorized to be issued is 10,000,000, and each such share will have a par value of \$0.001."

FOURTH : That the foregoing amendments were duly adopted by the Board of Directors and by the stockholders of the Corporation in accordance with the applicable provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF , the undersigned, being a duly authorized officer of the Corporation, does hereby execute this Certificate of Amendment to the Restated Certificate of Incorporation this ___ day of _____, 2009.

By:
Name:
Title:

MANHATTAN PHARMACEUTICALS, INC.
2003 Stock Option Plan

(including amendments through May 24, 2007)

1. Purpose . The purpose of the 2003 Stock Option Plan (the “ Plan ”) of Manhattan Pharmaceuticals, Inc., a Delaware corporation (the “ Company ”), is to increase stockholder value and to advance the interests of the Company by furnishing a variety of economic incentives (“ Incentives ”) designed to attract, retain and motivate employees, directors and consultants. Incentives may consist of opportunities to purchase or receive shares of common stock, \$0.001 par value, of the Company (“ Common Stock ”), monetary payments or both on terms determined under this Plan.

2. Administration ..

2.1 The Plan shall be administered by a committee (the “ Committee ”) of the Board of Directors of the Company (the “ Board ”). The Committee shall consist of not less than two directors of the Company who shall be appointed from time to time by the board of directors of the Company. Each member of the Committee shall be a “non-employee director” within the meaning of Rule 16b-3 of the Exchange Act of 1934, as amended (together with the rules and regulations promulgated thereunder, the “ Exchange Act ”), and an “outside director” as defined in Section 162(m) of the Internal Revenue Code of 1986, as amended (the “ Code ”). The Committee shall have complete authority to determine all provisions of all Incentives awarded under the Plan (as consistent with the terms of the Plan), to interpret the Plan, and to make any other determination which it believes necessary and advisable for the proper administration of the Plan. The Committee’s decisions and matters relating to the Plan shall be final and conclusive on the Company and its participants. No member of the Committee will be liable for any action or determination made in good faith with respect to the Plan or any Incentives granted under the Plan. The Committee will also have the authority under the Plan to amend or modify the terms of any outstanding Incentives in any manner; provided, however , that the amended or modified terms are permitted by the Plan as then in effect and that any recipient on an Incentive adversely affected by such amended or modified terms has consented to such amendment or modification. No amendment or modification to an Incentive, however, whether pursuant to this Section 2 or any other provisions of the Plan, will be deemed to be a re-grant of such Incentive for purposes of this Plan. If at any time there is no Committee, then for purposes of the Plan the term “Committee” shall mean the entire Board.

2.2 In the event of (i) any reorganization, merger, consolidation, recapitalization, liquidation, reclassification, stock dividend, stock split, combination of shares, rights offering, extraordinary dividend or divestiture (including a spin-off) or any other similar change in corporate structure or shares, (ii) any purchase, acquisition, sale or disposition of a significant amount of assets or a significant business, (iii) any change in accounting principles or practices, or (iv) any other similar change, in each case with respect to the Company or any other entity whose performance is relevant to the grant or vesting of an Incentive, the Committee (or, if the Company is not the surviving corporation in any such transaction, the board of directors of the surviving corporation) may, without the consent of any affected participant, amend or modify the vesting criteria of any outstanding Incentive that is based in whole or in part on the financial performance of the Company (or any subsidiary or division thereof) or such other entity so as equitably to reflect such event, with the desired result that the criteria for evaluating such financial performance of the Company or such other entity will be substantially the same (in the sole discretion of the Committee or the board of directors of the surviving corporation) following such event as prior to such event; provided, however, that the amended or modified terms are permitted by the Plan as then in effect.

3. Eligible Participants . Employees of the Company or its subsidiaries (including officers and employees of the Company or its subsidiaries), directors and consultants, advisors or other independent contractors who provide services to the Company or its subsidiaries (including members of the Company’s scientific advisory board) shall become eligible to receive Incentives under the Plan when designated by the Committee. Participants may be designated individually or by groups or categories (for example, by pay grade) as the Committee deems appropriate. Participation by officers of the Company or its subsidiaries and any performance objectives relating to such officers must be approved by the Committee; provided, however, that if the entire Board is serving as the Committee, then any Incentive awarded to an officer shall be approved by a majority of the “non-employee directors” (within the meaning of Rule 16b-3 of the Exchange Act). Participation by others and any performance objectives relating to others may be approved by groups or categories (for example, by pay grade) and authority to designate participants who are not officers and to set or modify such targets may be delegated.

4. Types of Incentives . Incentives under the Plan may be granted in any one or a combination of the following forms: (a) incentive stock options and non-statutory stock options (Section 6); (b) stock appreciation rights (“SARs”) (Section 7); (c) stock awards (Section 8); (d) restricted stock (Section 8); and (e) performance shares (Section 9).

5. Shares Subject to the Plan .

5.1. Number of Shares . Subject to adjustment as provided in Section 11.6, the number of shares of Common Stock which may be issued under the Plan shall not exceed 10,400,000 shares of Common Stock. Shares of Common Stock that are issued under the Plan or that are subject to outstanding Incentives will be applied to reduce the maximum number of shares of Common Stock remaining available for issuance under the Plan.

5.2. Cancellation . To the extent that cash in lieu of shares of Common Stock is delivered upon the exercise of an SAR pursuant to Section 7.4, the Company shall be deemed, for purposes of applying the limitation on the number of shares, to have issued the greater of the number of shares of Common Stock which it was entitled to issue upon such exercise or on the exercise of any related option. In the event that a stock option or SAR granted hereunder expires or is terminated or canceled unexercised or unvested as to any shares of Common Stock, such shares may again be issued under the Plan either pursuant to stock options, SARs or otherwise. In the event that shares of Common Stock are issued as restricted stock or pursuant to a stock award and thereafter are forfeited or reacquired by the Company pursuant to rights reserved upon issuance thereof, such forfeited and reacquired shares may again be issued under the Plan, either as restricted stock, pursuant to stock awards or otherwise. The Committee may also determine to cancel, and agree to the cancellation of, stock options in order to make a participant eligible for the grant of a stock option at a lower price than the option to be canceled.

6. Stock Options . A stock option is a right to purchase shares of Common Stock from the Company. The Committee may designate whether an option is to be considered an incentive stock option or a non-statutory stock option. To the extent that any incentive stock option granted under the Plan ceases for any reason to qualify as an “incentive stock option” for purposes of Section 422 of the Code, such incentive stock option will continue to be outstanding for purposes of the Plan but will thereafter be deemed to be a non-statutory stock option. Each stock option granted by the Committee under this Plan shall be subject to the following terms and conditions:

6.1. Price . The option price per share shall be determined by the Committee, subject to adjustment under Section 11.6.

6.2. Number . The number of shares of Common Stock subject to the option shall be determined by the Committee, subject to adjustment as provided in Section 11.6. The number of shares of Common Stock subject to a stock option shall be reduced in the same proportion that the holder thereof exercises a SAR if any SAR is granted in conjunction with or related to the stock option. No individual may receive options to purchase more than 2,000,000 shares in any year.

6.3. Duration and Time for Exercise . Subject to earlier termination as provided in Section 11.4, the term of each stock option shall be determined by the Committee but in no event shall be more than ten years from the date of grant. Each stock option, or portion thereof, shall become exercisable at such time or times as may be designated by the Committee at the time of the stock option grant. The Committee may accelerate the vesting of any stock option.

6.4. Manner of Exercise . Subject to the conditions contained in this Plan and in the agreement with the recipient evidencing such option, a stock option may be exercised, in whole or in part, by giving written notice to the Company, specifying the number of shares of Common Stock to be purchased and accompanied by the full purchase price for such shares. The exercise price shall be payable (a) in United States dollars upon exercise of the option and may be paid by cash; uncertified or certified check; bank draft; (b) by delivery of shares of Common Stock that are already owned by the participant in payment of all or any part of the exercise price, which shares shall be valued for this purpose at the Fair Market Value on the date such option is exercised; or (c) at the discretion of the Committee, by instructing the Company to withhold from the shares of Common Stock issuable upon exercise of the stock option shares of Common Stock in payment of all or any part of the exercise price and/or any related withholding tax obligations, which shares shall be valued for this purpose at the Fair Market Value. The shares of Common Stock

delivered by the participant pursuant to Section 6.4(b) must have been held by the participant for a period of not less than six months prior to the exercise of the option, unless otherwise determined by the Committee. Prior to the issuance of shares of Common Stock upon the exercise of a stock option, a participant shall have no rights as a stockholder. Except as otherwise provided in the Plan, no adjustment will be made for dividends or distributions with respect to such stock options as to which there is a record date preceding the date the participant becomes the holder of record of such shares, except as the Committee may determine in its discretion.

6.5. Incentive Stock Options . Notwithstanding anything in the Plan to the contrary, the following additional provisions shall apply to the grant of stock options which are intended to qualify as Incentive Stock Options (as such term is defined in Section 422 of the Code):

(a) The aggregate Fair Market Value (determined as of the time the option is granted) of the shares of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any participant during any calendar year (under the Plan and any other incentive stock option plans of the Company or any subsidiary or parent corporation of the Company) shall not exceed \$100,000. The determination will be made by taking incentive stock options into account in the order in which they were granted.

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(b) Any Incentive Stock Option certificate authorized under the Plan shall contain such other provisions as the Committee shall deem advisable, but shall in all events be consistent with and contain all provisions required in order to qualify the options as Incentive Stock Options.

(c) All Incentive Stock Options must be granted within ten years from the earlier of the date on which this Plan was adopted by board of directors or the date this Plan was approved by the Company's stockholders.

(d) Unless sooner exercised, all Incentive Stock Options shall expire no later than 10 years after the date of grant. No Incentive Stock Option may be exercisable after ten (10) years from its date of grant (five (5) years from its date of grant if, at the time the Incentive Stock Option is granted, the Participant owns, directly or indirectly, more than 10% of the total combined voting power of all classes of stock of the Company or any parent or subsidiary corporation of the Company).

(e) The exercise price for Incentive Stock Options shall be not less than 100% of the Fair Market Value of one share of Common Stock on the date of grant with respect to an Incentive Stock Option; provided that the exercise price shall be 110% of the Fair Market Value if, at the time the Incentive Stock Option is granted, the participant owns, directly or indirectly, more than 10% of the total combined voting power of all classes of stock of the Company or any parent or subsidiary corporation of the Company.

7. Stock Appreciation Rights . An SAR is a right to receive, without payment to the Company, a number of shares of Common Stock, cash or any combination thereof, the amount of which is determined pursuant to the formula set forth in Section 7.4. An SAR may be granted (a) with respect to any stock option granted under this Plan, either concurrently with the grant of such stock option or at such later time as determined by the Committee (as to all or any portion of the shares of Common Stock subject to the stock option), or (b) alone, without reference to any related stock option. Each SAR granted by the Committee under this Plan shall be subject to the following terms and conditions:

7.1. Number; Exercise Price . Each SAR granted to any participant shall relate to such number of shares of Common Stock as shall be determined by the Committee, subject to adjustment as provided in Section 11.6. In the case of an SAR granted with respect to a stock option, the number of shares of Common Stock to which the SAR pertains shall be reduced in the same proportion that the holder of the option exercises the related stock option. The exercise price of an SAR will be determined by the Committee, in its discretion, at the date of grant but may not be less than 100% of the Fair Market Value of one share of Common Stock on the date of grant.

7.2. Duration .. Subject to earlier termination as provided in Section 11.4, the term of each SAR shall be determined by the Committee but shall not exceed ten years and one day from the date of grant. Unless otherwise provided by the Committee, each SAR shall become exercisable at such time or times, to such extent and upon such conditions as the stock option, if any, to which it relates is exercisable. The Committee may in its discretion accelerate the exercisability of any SAR.

7.3. Exercise .. An SAR may be exercised, in whole or in part, by giving written notice to the Company, specifying the number of SARs which the holder wishes to exercise. Upon receipt of such written notice, the Company shall, within 90 days thereafter, deliver to the exercising holder certificates for the shares of Common Stock or cash or both, as determined by the Committee, to which the holder is entitled pursuant to Section 7.4.

7.4. Payment .. Subject to the right of the Committee to deliver cash in lieu of shares of Common Stock (which, as it pertains to officers and directors of the Company, shall comply with all requirements of the Exchange Act), the number of shares of Common Stock which shall be issuable upon the exercise of an SAR shall be determined by dividing:

(a) the number of shares of Common Stock as to which the SAR is exercised multiplied by the amount of the appreciation in such shares (for this purpose, the “appreciation” shall be the amount by which the Fair Market Value of the shares of Common Stock subject to the SAR on the exercise date exceeds (1) in the case of an SAR related to a stock option, the exercise price of the shares of Common Stock under the stock option or (2) in the case of an SAR granted alone, without reference to a related stock option, an amount which shall be determined by the Committee at the time of grant, subject to adjustment under Section 11.6); by

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(b) the Fair Market Value of a share of Common Stock on the exercise date.

In lieu of issuing shares of Common Stock upon the exercise of a SAR, the Committee may elect to pay the holder of the SAR cash equal to the Fair Market Value on the exercise date of any or all of the shares which would otherwise be issuable. No fractional shares of Common Stock shall be issued upon the exercise of an SAR; instead, the holder of the SAR shall be entitled to receive a cash adjustment equal to the same fraction of the Fair Market Value of a share of Common Stock on the exercise date or to purchase the portion necessary to make a whole share at its Fair Market Value on the date of exercise.

8. Stock Awards and Restricted Stock . A stock award consists of the transfer by the Company to a participant of shares of Common Stock, without other payment therefor, as additional compensation for services to the Company. The participant receiving a stock award will have all voting, dividend, liquidation and other rights with respect to the shares of Common Stock issued to a participant as a stock award under this Section 8 upon the participant becoming the holder of record of such shares. A share of restricted stock consists of shares of Common Stock which are sold or transferred by the Company to a participant at a price determined by the Committee (which price shall be at least equal to the minimum price required by applicable law for the issuance of a share of Common Stock) and subject to restrictions on their sale or other transfer by the participant, which restrictions and conditions may be determined by the Committee as long as such restrictions and conditions are not inconsistent with the terms of the Plan. The transfer of Common Stock pursuant to stock awards and the transfer and sale of restricted stock shall be subject to the following terms and conditions:

8.1. Number of Shares . The number of shares to be transferred or sold by the Company to a participant pursuant to a stock award or as restricted stock shall be determined by the Committee.

8.2. Sale Price . The Committee shall determine the price, if any, at which shares of restricted stock shall be sold or granted to a participant, which may vary from time to time and among participants and which may be below the Fair Market Value of such shares of Common Stock at the date of sale.

8.3. Restrictions . All shares of restricted stock transferred or sold hereunder shall be subject to such restrictions as the Committee may determine, including, without limitation any or all of the following:

(a) a prohibition against the sale, transfer, pledge or other encumbrance of the shares of restricted stock, such prohibition to lapse at such time or times as the Committee shall determine (whether in annual or more frequent installments, at the time of the death, Disability or retirement of the holder of such shares, or otherwise);

(b) a requirement that the holder of shares of restricted stock forfeit, or (in the case of shares sold to a participant) resell back to the Company at his or her cost, all or a part of such shares in the event of termination of his or her employment or consulting engagement during any period in which such shares are subject to restrictions; or

(c) such other conditions or restrictions as the Committee may deem advisable.

8.4. Escrow . In order to enforce the restrictions imposed by the Committee pursuant to Section 8.3, the participant receiving restricted stock shall enter into an agreement with the Company setting forth the conditions of the grant. Shares of restricted stock shall be registered in the name of the participant and deposited, together with a stock power endorsed in blank, with the Company. Each such certificate shall bear a legend in substantially the following form:

The transferability of this certificate and the shares of Common Stock represented by it are subject to the terms and conditions (including conditions of forfeiture) contained in the 2003 Stock Option Plan of Manhattan Pharmaceuticals, Inc. (the "Company"), and an agreement entered into between the registered owner and the Company. A copy of the

2003 Stock Option Plan and the agreement is on file in the office of the secretary of the Company.

8.5. End of Restrictions . Subject to Section 11.5, at the end of any time period during which the shares of restricted stock are subject to forfeiture and restrictions on transfer, such shares will be delivered free of all restrictions to the participant or to the participant's legal representative, beneficiary or heir.

8.6. Stockholder . Subject to the terms and conditions of the Plan, each participant receiving restricted stock shall have all the rights of a stockholder with respect to shares of stock during any period in which such shares are subject to forfeiture and restrictions on transfer, including without limitation, the right to vote such shares. Dividends paid in cash or property other than Common Stock with respect to shares of restricted stock shall be paid to the participant currently. Unless the Committee determines otherwise in its sole discretion, any dividends or distributions (including regular quarterly cash dividends) paid with respect to shares of Common Stock subject to the restrictions set forth above will be subject to the same restrictions as the shares to which such dividends or distributions relate. In the event the Committee determines not to pay dividends or distributions currently, the Committee will determine in its sole discretion whether any interest will be paid on such dividends or distributions. In addition, the Committee in its sole discretion may require such dividends and distributions to be reinvested (and in such case the participant consents to such reinvestment) in shares of Common Stock that will be subject to the same restrictions as the shares to which such dividends or distributions relate.

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9. Performance Shares . A performance share consists of an award which shall be paid in shares of Common Stock, as described below. The grant of a performance share shall be subject to such terms and conditions as the Committee deems appropriate, including the following:

9.1. Performance Objectives . Each performance share will be subject to performance objectives for the Company or one of its operating units to be achieved by the participant before the end of a specified period. The number of performance shares granted shall be determined by the Committee and may be subject to such terms and conditions, as the Committee shall determine. If the performance objectives are achieved, each participant will be paid in shares of Common Stock or cash as determined by the Committee. If such objectives are not met, each grant of performance shares may provide for lesser payments in accordance with formulas established in the award.

9.2. Not Stockholder . The grant of performance shares to a participant shall not create any rights in such participant as a stockholder of the Company, until the payment of shares of Common Stock with respect to an award.

9.3. No Adjustments . No adjustment shall be made in performance shares granted on account of cash dividends which may be paid or other rights which may be issued to the holders of Common Stock prior to the end of any period for which performance objectives were established.

9.4. Expiration of Performance Share . If any participant's employment or consulting engagement with the Company is terminated for any reason other than normal retirement, death or Disability prior to the achievement of the participant's stated performance objectives, all the participant's rights on the performance shares shall expire and terminate unless otherwise determined by the Committee. In the event of termination of employment or consulting by reason of death, Disability, or normal retirement, the Committee, in its own discretion may determine what portions, if any, of the performance shares should be paid to the participant.

10. Change of Control .

10.1 Change in Control . For purposes of this Section 10, a "Change in Control " of the Company will mean the following:

- (a) the sale, lease, exchange or other transfer, directly or indirectly, of all or substantially all of the assets of the Company (in one transaction or in a series of related transactions) to a person or entity that is not controlled by the Company;
- (b) the approval by the stockholders of the Company of any plan or proposal for the liquidation or dissolution of the Company;
- (c) any person becomes after the effective date of the Plan the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of (i) 20% or more, but not 50% or more, of the combined voting power of the Company's outstanding securities ordinarily having the right to vote at elections of directors, unless the transaction resulting in such ownership has been approved in advance by the Continuing Directors (as defined below), or (ii) 50% or more of the combined voting power of the Company's outstanding securities ordinarily having the right to vote at elections of directors (regardless of any approval by the Continuing Directors); provided that a traditional institution or venture capital financing transaction shall be excluded from this definition;
- (d) a merger or consolidation to which the Company is a party if the stockholders of the Company immediately prior to effective date of such merger or consolidation have "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act), immediately following the effective date of such merger or consolidation, of securities of the surviving corporation representing (i) 50% or more, but less than 80%, of the combined voting power of the surviving

corporation's then outstanding securities ordinarily having the right to vote at elections of directors, unless such merger or consolidation has been approved in advance by the Continuing Directors, or (ii) less than 50% of the combined voting power of the surviving corporation's then outstanding securities ordinarily having the right to vote at elections of directors (regardless of any approval by the Continuing Directors).

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10.2 Continuing Directors . For purposes of this Section 10, “Continuing Directors” of the Company will mean any individuals who are members of the Board on the effective date of the Plan and any individual who subsequently becomes a member of the Board whose election, or nomination for election by the Company’s stockholders, was approved by a vote of at least a majority of the Continuing Directors (either by specific vote or by approval of the Company’s proxy statement in which such individual is named as a nominee for director without objection to such nomination).

10.3 Acceleration of Incentives . Without limiting the authority of the Committee under the Plan, if a Change of Control of the Company occurs whereby the acquiring entity or successor to the Company does not assume the Incentives or replace them with substantially equivalent incentive awards, then upon the effective date of any such Change in Control (a) all outstanding options and SARs will vest and will become immediately exercisable in full and will remain exercisable for the remainder of their terms, regardless of whether the participant to whom such options or SARs have been granted remains in the employ or service of the Company or any subsidiary of the Company or any acquiring entity or successor to the Company; (b) the restrictions on all shares of restricted stock awards shall lapse immediately; and (c) all performance shares shall be deemed to be met and payment made immediately.

10.4 Cash Payment for Options . If a Change in Control of the Company occurs, then the Committee, if approved by the Committee in its sole discretion either in an agreement evidencing an option at the time of grant or at any time after the grant of an option, and without the consent of any participant affected thereby, may determine that:

- (a) some or all participants holding outstanding options will receive, with respect to some or all of the shares of Common Stock subject to such options, as of the effective date of any such Change in Control of the Company, cash in an amount equal to the excess of the Fair Market Value of such shares immediately prior to the effective date of such Change in Control of the Company over the exercise price per share of such options; and
- (b) any options as to which, as of the effective date of any such Change in Control, the Fair Market Value of the shares of Common Stock subject to such options is less than or equal to the exercise price per share of such options, shall terminate as of the effective date of any such Change in Control.

If the Committee makes a determination as set forth in subparagraph (a) of this Section 10.4, then as of the effective date of any such Change in Control of the Company, such options will terminate as to such shares and the participants formerly holding such options will only have the right to receive such cash payment(s). If the Committee makes a determination as set forth in subparagraph (b) of this Section 10.4, then as of the effective date of any such Change in Control of the Company such options will terminate, become void and expire as to all unexercised shares of Common Stock subject to such options on such date, and the participants formerly holding such options will have no further rights with respect to such options.

11. General ..

11.1. Effective Date . The Plan will become effective upon approval by the Board.

11.2. Duration .. The Plan shall remain in effect until all Incentives granted under the Plan have either been satisfied by the issuance of shares of Common Stock or the payment of cash or been terminated under the terms of the Plan and all restrictions imposed on shares of Common Stock in connection with their issuance under the Plan have lapsed. No Incentives may be granted under the Plan after the tenth anniversary of the date the Plan is approved by the stockholders of the Company.

11.3. Non-transferability of Incentives . Except, in the event of the holder’s death, by will or the laws of descent and distribution to the limited extent provided in the Plan or the Incentive, unless approved by the Committee, no stock

option, SAR, restricted stock or performance award may be transferred, pledged or assigned by the holder thereof, either voluntarily or involuntarily, directly or indirectly, by operation of law or otherwise, and the Company shall not be required to recognize any attempted assignment of such rights by any participant. During a participant's lifetime, an Incentive may be exercised only by him or her or by his or her guardian or legal representative.

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11.4. Effect of Termination, Death or Disability . In the event that a participant ceases to be an employee of or consultant to the Company, or the participant's other service with the Company is terminated, for any reason, including death, but excluding "Disability," any Incentives may be exercised or shall expire at such times as may be determined by the Committee in its sole discretion in the agreement evidencing an Incentive. Notwithstanding any provision to the contrary contained in the Plan, in the event that a participant ceases to be employed or engaged by the Company, or is otherwise unable to render services to the Company, as a result of a Disability, any portion of a stock option Incentive that has vested as of the date of such Disability shall remain exercisable for the remaining term of such stock option, or such lesser period as provided in the agreement evidencing the terms of such stock option; provided, however, that all portions of a stock option Incentive that have not yet vested or are scheduled to vest in the future shall not vest and the employee's rights to such portion of the stock option shall terminate. Notwithstanding the other provisions of this Section 11.4, upon a participant's termination of employment or other service with the Company and all subsidiaries (other than as a result of a Disability), the Committee may, in its sole discretion (which may be exercised at any time on or after the date of grant, including following such termination), cause options and SARs (or any part thereof) then held by such participant to become or continue to become exercisable and/or remain exercisable following such termination of employment or service and Restricted Stock Awards, Performance Shares and Stock Awards then held by such participant to vest and/or continue to vest or become free of transfer restrictions, as the case may be, following such termination of employment or service, in each case in the manner determined by the Committee; provided, however, that no Incentive may remain exercisable or continue to vest beyond its expiration date. Any Incentive Stock Option that remains unexercised more than one (1) year following termination of employment by reason of death or Disability or more than three (3) months following termination for any reason other than death or Disability will thereafter be deemed to be a Non-Statutory Stock Option. The term "Disability" shall mean, with respect to a participant, that such participant is unable to perform a significant part of his or her duties and responsibilities as an employee, director, consultant or other advisor to the Company by reason of such participant's physical or mental injury or illness, and such inability lasts for a period of at least 180 consecutive days.

11.5. Additional Conditions . Notwithstanding anything in this Plan to the contrary: (a) the Company may, if it shall determine it necessary or desirable for any reason, at the time of award of any Incentive or the issuance of any shares of Common Stock pursuant to any Incentive, require the recipient of the Incentive, as a condition to the receipt thereof or to the receipt of shares of Common Stock issued pursuant thereto, to deliver to the Company a written representation of present intention to acquire the Incentive or the shares of Common Stock issued pursuant thereto for his or her own account for investment and not for distribution; and (b) if at any time the Company further determines, in its sole discretion, that the listing, registration or qualification (or any updating of any such document) of any Incentive or the shares of Common Stock issuable pursuant thereto is necessary on any securities exchange or under any federal or state securities or blue sky law, or that the consent or approval of any governmental regulatory body is necessary or desirable as a condition of, or in connection with the award of any Incentive, the issuance of shares of Common Stock pursuant thereto, or the removal of any restrictions imposed on such shares, such Incentive shall not be awarded or such shares of Common Stock shall not be issued or such restrictions shall not be removed, as the case may be, in whole or in part, unless such listing, registration, qualification, consent or approval shall have been effected or obtained free of any conditions not acceptable to the Company. Notwithstanding any other provision of the Plan or any agreements entered into pursuant to the Plan, the Company will not be required to issue any shares of Common Stock under this Plan, and a participant may not sell, assign, transfer or otherwise dispose of shares of Common Stock issued pursuant to any Incentives granted under the Plan, unless (a) there is in effect with respect to such shares a registration statement under the Securities Act of 1933, as amended (the "Securities Act"), and any applicable state or foreign securities laws or an exemption from such registration under the Securities Act and applicable state or foreign securities laws, and (b) there has been obtained any other consent, approval or permit from any other regulatory body which the Committee, in its sole discretion, deems necessary or advisable. The Company may condition such issuance, sale or transfer upon the receipt of any representations or agreements from the parties involved, and the placement of any legends on certificates representing shares of Common Stock, as may be deemed necessary or advisable by the Company in order to comply with such securities law or other restrictions.

11.6. Adjustment . In the event of any merger, consolidation or reorganization of the Company with any other corporation or corporations, there shall be substituted for each of the shares of Common Stock then subject to the Plan, including shares subject to restrictions, options, or achievement of performance share objectives, the number and kind of shares of stock or other securities to which the holders of the shares of Common Stock will be entitled pursuant to the transaction. In the event of any recapitalization, reclassification, stock dividend, stock split, combination of shares or other similar change in the corporate structure of the Company or shares of the Company, the exercise price of an outstanding Incentive and the number of shares of Common Stock then subject to the Plan, including shares subject to restrictions, options or achievements of performance shares, shall be adjusted in proportion to the change in outstanding shares of Common Stock in order to prevent dilution or enlargement of the rights of the participants. In the event of any such adjustments, the purchase price of any option, the performance objectives of any Incentive, and the shares of Common Stock issuable pursuant to any Incentive shall be adjusted as and to the extent appropriate, in the discretion of the Committee, to provide participants with the same relative rights before and after such adjustment.

11.7. Incentive Plans and Agreements . Except in the case of stock awards or cash awards, the terms of each Incentive shall be stated in a plan or agreement approved by the Committee. The Committee may also determine to enter into agreements with holders of options to reclassify or convert certain outstanding options, within the terms of the Plan, as Incentive Stock Options or as non-statutory stock options and in order to eliminate SARs with respect to all or part of such options and any other previously issued options.

11.8. Withholding ..

(a) The Company shall have the right to (i) withhold and deduct from any payments made under the Plan or from future wages of the participant (or from other amounts that may be due and owing to the participant from the Company or a subsidiary of the Company), or make other arrangements for the collection of, all legally required amounts necessary to satisfy any and all foreign, federal, state and local withholding and employment-related tax requirements attributable to an Incentive, or (ii) require the participant promptly to remit the amount of such withholding to the Company before taking any action, including issuing any shares of Common Stock, with respect to an Incentive. At any time when a participant is required to pay to the Company an amount required to be withheld under applicable income tax laws in connection with a distribution of Common Stock or upon exercise of an option or SAR, the participant may satisfy this obligation in whole or in part by electing (the “ Election ”) to have the Company withhold from the distribution shares of Common Stock having a value up to the amount required to be withheld. The value of the shares to be withheld shall be based on the Fair Market Value of the Common Stock on the date that the amount of tax to be withheld shall be determined (“ Tax Date ”).

(b) Each Election must be made prior to the Tax Date. The Committee may disapprove of any Election, may suspend or terminate the right to make Elections, or may provide with respect to any Incentive that the right to make Elections shall not apply to such Incentive. An Election is irrevocable.

(c) If a participant is an officer or director of the Company within the meaning of Section 16 of the Exchange Act, then an Election is subject to the following additional restrictions:

(1) No Election shall be effective for a Tax Date which occurs within six months of the grant or exercise of the award, except that this limitation shall not apply in the event death or Disability of the participant occurs prior to the expiration of the six-month period.

(2) The Election must be made either six months prior to the Tax Date or must be made during a period beginning on the third business day following the date of release for publication of the Company's quarterly or annual summary statements of sales and earnings and ending on the twelfth business day following such date.

11.9. No Continued Employment, Engagement or Right to Corporate Assets . No participant under the Plan shall have any right, because of his or her participation, to continue in the employ of the Company for any period of time or to any right to continue his or her present or any other rate of compensation. Nothing contained in the Plan shall be construed as giving an employee, a consultant, such persons' beneficiaries or any other person any equity or interests of any kind in the assets of the Company or creating a trust of any kind or a fiduciary relationship of any kind between the Company and any such person.

11.10. Deferral Permitted . Payment of cash or distribution of any shares of Common Stock to which a participant is entitled under any Incentive shall be made as provided in the Incentive. Payment may be deferred at the option of the participant if provided in the Incentive.

11.11. Amendment of the Plan . The Board may amend, suspend or discontinue the Plan at any time; provided, however, that no amendments to the Plan will be effective without approval of the stockholders of the Company if stockholder approval of the amendment is then required pursuant to Section 422 of the Code or the rules of any stock exchange or Nasdaq or similar regulatory body. No termination, suspension or amendment of the Plan may adversely affect any outstanding Incentive without the consent of the affected participant; provided, however, that this sentence will not impair the right of the Committee to take whatever action it deems appropriate under Section 11.6 of the Plan.

11.12. Definition of Fair Market Value . For purposes of this Plan, the " Fair Market Value " of a share of Common Stock at a specified date shall, unless otherwise expressly provided in this Plan, be the amount which the Committee or the board of directors of the Company determines in good faith in the exercise of its reasonable discretion to be 100% of the fair market value of such a share as of the date in question; provided, however, that notwithstanding the foregoing, if such shares are listed on a U.S. securities exchange or are quoted on the Nasdaq National Market System or Nasdaq SmallCap Stock Market (collectively, " Nasdaq "), then Fair Market Value shall be determined by reference to the last sale price of a share of Common Stock on such U.S. securities exchange or Nasdaq on the applicable date. If such U.S. securities exchange or Nasdaq is closed for trading on such date, or if the Common Stock does not trade on such date, then the last sale price used shall be the one on the date the Common Stock last traded on such U.S. securities exchange or Nasdaq.

11.13 Breach of Confidentiality, Assignment of Inventions, or Non-Compete Agreements . Notwithstanding anything in the Plan to the contrary, in the event that a participant materially breaches the terms of any confidentiality, assignment of inventions, or non-compete agreement entered into with the Company or any subsidiary of the Company, whether such breach occurs before or after termination of such participant's employment or other service with the Company or any subsidiary, the Committee in its sole discretion may immediately terminate all rights of the

participant under the Plan and any agreements evidencing an Incentive then held by the participant without notice of any kind.

11.14 **Governing Law** . The validity, construction, interpretation, administration and effect of the Plan and any rules, regulations and actions relating to the Plan will be governed by and construed exclusively in accordance with the laws of the State of Delaware, notwithstanding the conflicts of laws principles of any jurisdictions.

11.15 **Successors and Assigns** . The Plan will be binding upon and inure to the benefit of the successors and permitted assigns of the Company and the participants in the Plan.

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PROXY

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

MANHATTAN PHARMACEUTICALS, INC.

The undersigned, a stockholder of Manhattan Pharmaceuticals, Inc., hereby appoints Michael G. McGuinness as proxy, with full power of substitution, to vote on behalf of the undersigned the number of shares which the undersigned is then entitled to vote, at the Annual Meeting of Stockholders of Manhattan Pharmaceuticals, Inc. to be held at the offices of Lowenstein Sandler PC at 65 Livingston Avenue, Roseland, NJ 07068 at 10:00 a.m. (EST), on November 30, 2009, and at any and all adjournments thereof, with all the powers which the undersigned would possess if personally present, in the manner directed herein.

(Continued, and to be marked, dated and signed, on the other side)

Manhattan Pharmaceuticals, Inc.

Your vote is important. We encourage you to vote promptly. Internet and telephone voting is available through 11:59 P.M. Eastern Time on November 13, 2009. You may vote in one of the following ways:

To Vote Your Proxy by Internet - www.proxyvote.com

Use the internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time on November 13, 2009. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

Electronic Delivery of Future Stockholder Communications

If you would like to reduce the costs incurred by Manhattan Pharmaceuticals, Inc. in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access stockholder communications electronically in future years.

To Vote Your Proxy by Phone – 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time on November 13, 2009. Have your proxy card in hand when you call and then follow the instructions to vote your shares.

To Vote Your Proxy by Mail

Mark, Sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Manhattan Pharmaceuticals, Inc., c/o Broadridge 51 Mercedes Way, Edgewood, NY 11717.

Please detach here

PROXY

THIS PROXY WILL BE VOTED AS DIRECTED, OR IF NO DIRECTION IS INDICATED, WILL BE VOTED “FOR” THE PROPOSALS. THIS PROXY IS SOLICITED IN BEHALF OF THE BOARD OF DIRECTORS.

	FOR	WITHHOLD AUTHORITY		FOR	AGAINST	ABSTAIN
2. ELECTION OF DIRECTORS:			1. TO AMEND THE
DOUGLAS ABEL	COMPANY'S			
NEIL HERSKOWITZ	CERTIFICATE OF			
MALCOLM HOENLEIN	INCORPORATION			
TIMOTHY McINERNEY	TO INCREASE THE			
RICHARD I. STEINHART	AUTHORIZED			
MICHAEL WEISER	SHARES OF THE			
			COMPANY'S			
			COMMON STOCK			
			FROM 300,000,000			
			TO 500,000,000.			
			3. PROPOSAL TO
			AMEND THE 2003			
			STOCK OPTION			

PLAN.

4. PROPOSAL TO RATIFY

APPOINTMENT OF J.H. COHN LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR 2009.

5. In their discretion, the Proxies are authorized to vote upon such other business as may come before the Meeting.

COMPANY NUMBER:

PROXY NUMBER:

ACCOUNT NUMBER:

Signature

Signature

Date
