



Data supplied by media tracking specialist BigChampagne and desktop monitoring firm PC Pitstop.

## Digital Music News Research Group

### Top Level Description

This report tracks the month-to-month global install base for leading digital music applications. Several types of applications are covered, including those related to paid downloads, subscription-based music, collection organization and management (jukebox), and file-sharing (P2P, BitTorrent). The report is a coordinated effort involving media tracking specialist BigChampagne and desktop monitoring firm PC Pitstop.

### Methodology for Data Collection and Analysis

PC Pitstop performs diagnostic tests on hundreds of thousands of unique PCs each month, worldwide. The primary purpose of these tests is to eliminate viruses, adware and spyware and to identify opportunities to improve PC performance. These tests are voluntary, and aggregated data captured during these tests provide the basis for the analysis in this report.

Over a twelve-month period, 1,519,358 PCs were polled for this analysis. In January of 2007 alone, data from 153,138 were collected. These numbers include only the information of first-time users of PC Pitstop, so each data point is unique. The end result of such a large cross-section is a clear month-over-month history of the applications favored by PC users.

The massive survey number reveals deeper trends. For example, a smaller survey would not detect the bubbling adoption of Frostwire and Pando. PC Pitstop captured 152 unique P2P clients in its analysis, including fringe participants. Only a data set this large could accomplish this and then follow the rise and fall of each and every client.

The data has its limitations. Although the survey can detect the presence of an application on a hard drive, it cannot tell if that application is being actively used or not. We can read through the month-to-month analysis to determine the flow of adoption and rejection of a particular application. For example, the sharp and quick rise of  $\mu$ Torrent is unambiguous. Likewise, the dramatic collapse of Kazaa as a presence on systems is also clear, particularly since not all users actively purge old unused applications. Change is what we seek in these numbers, change that is consistent over the given period of time. It is this change that tells the story.

## CONTENTS

This Fourth Quarter, 2007 report examines both established and emerging applications:

### I. File Sharing P2P Applications

- A. Installation Overview
- B.  $\mu$ Torrent Grows. Azureus Plummetts.
- C. BitTorrent Corporation Makes Major Gains on LimeWire.
- D. Is FrostWire the Next  $\mu$ Torrent?
- E. BitTorrent Clients versus Pando and Frostwire Attachment Rates.

### II. Digital Music eCommerce Applications

- A. Installation Overview
- B. One Out of Three Consumers Experiment with Multiple Paid Download Services.
- C. iTunes Leads the Pack, Rhapsody Gaining Traction.

### III. Digital Music Jukebox Applications

- A. RealPlayer Still Dropping, iTunes Flattening.



Another limitation comes from convergence, or situations in which applications handle multiple activities. For example, the iTunes application is required to access Apple's iTunes music store, but it is also used as a music jukebox and as a necessary file transfer application for the iPod. Can we honestly assume that all consumers use iTunes for all three? Probably not, but it is reasonable to assume that a healthy percentage do. In our analyses, we make levelheaded assumptions about an application's popularity for a specific use.

We are also witnessing some shift in the market from client-based media access tools like RealPlayer to clientless web-based applications that only require a common browser plug-in. More operations are adopting Flash and Java technologies to deliver music and video - Slacker, Deezer and YouTube are three notable examples - and that trend adds to the complexity of market share measurement. The fact that Slacker takes a multifaceted approach by also offering its users a client for improved media transfers adds to the complexity.

One last issue is the rise of Mac penetration into double digit territory. PC Pitstop only measures Windows machines and only a subset of the applications detected operate on a Mac - Windows Media Player being the most notable application that doesn't. Therefore, it is likely that Apple consumer use patterns are somewhat different. This was less of an issue when Apple held only a tiny portion of the consumer PC market, but as that company's fortunes continue to blossom, its presence must be recognized.

## I. File Sharing P2P Applications

### A. Installation Overview

Application	Sep-06	Jan-07	May-07	Sep-07	Dec-07	Network
Limewire	17.60%	18.70%	17.40%	17.80%	17.50%	Gnutella
µTorrent	1.50%	2.40%	3.60%	5.60%	6.40%	BitTorrent
Azureus	3.10%	3.20%	2.90%	2.10%	1.40%	BitTorrent
BitTorrent	2.70%	2.70%	2.40%	2.30%	2.50%	BitTorrent
BitComet	2.50%	2.20%	2.10%	1.90%	1.70%	BitTorrent
eMule	2.00%	1.90%	2.10%	2.00%	1.70%	eDonkey
Ares	1.80%	1.90%	2.10%	2.20%	2.00%	Ares
BearShare	1.70%	1.70%	1.60%	1.40%	1.30%	Gnutella
Shareaza	1.60%	1.40%	1.20%	1.10%	0.90%	Multiple Networks
BitLord	1.20%	1.30%	1.40%	1.30%	1.20%	BitTorrent
KaZaa	2.30%	1.60%	1.00%	0.80%	0.60%	FastTrack
BitTornado	1.10%	0.90%	0.80%	0.70%	0.60%	BitTorrent
Frostwire	0%	0.20%	0.50%	0.60%	0.80%	Gnutella
Pando	0%	0%	0.40%	0.40%	0.40%	Pando

### B. µTorrent Grows. Azureus Plummetts.

LimeWire is still the dominant P2P client by a wide margin, but that lead is thinning. Credit the rise of µTorrent, the most efficient of BitTorrent clients. In less than one year, µTorrent has moved past all of the other BitTorrent applications to become the second most popular P2P client.



In September of 2007,  $\mu$ Torrent was found on 5.6% of all PCs polled for this research (also referred to as the attachment rate).  $\mu$ Torrent continued its torrid growth and by December 2007 it had reached a 6.4% rate. With regards to market share – counting only those users with at least one P2P application on their systems -  $\mu$ Torrent held an 11.3% share in September 2007. By December 2007 that figure rose to a 13.5% share.

For the most part  $\mu$ Torrent's growth comes at the expense of its BitTorrent rivals - most noticeably from the former holder of the BitTorrent crown, Azureus. In the twelve months between December 2006 and December 2007, Azureus dropped precipitously. At its peak in March of 2007, Azureus was found on 3.4% of all PCs polled, good for a market share of 6.8% and second-place ranking among all P2P applications. Since then, the numbers have steadily eroded and by December 2007, Azureus dropped to an attachment rate of 1.4%, equal to a 3.1% market share. In just 9 months, Azureus plummeted to less than half its peak market share.

Azureus fell behind the Ares, BitComet, and eMule applications, all three which witnessed a more modest drop between September and December of 2007. It also fell behind the original BitTorrent application, which after a small downturn sported a modest rise during this period from 2.3% of all PCs polled (4.6% market share) to a 2.5% attachment rate (5.3% market share).

This may be attributed to the fact that the BitTorrent Corporation now owns former competitor  $\mu$ Torrent. In fact, BitTorrent 6.0 is really a re-branded  $\mu$ Torrent, and the underlying code for either application is found on 8.9% of all PCs polled for an 18.8% market share.

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### ***C. BitTorrent Corporation Makes Major Gains on LimeWire.***

LimeWire's presence has remained pretty steady for the past six months, hovering between a 36-37% market share with an attachment rate in the 17-18% range. The fact that LimeWire is not showing any significant audience erosion all year is good news for the company. Still, LimeWire's lack of growth, coupled with the strong combined growth of the BitTorrent Corporation's  $\mu$ Torrent/BitTorrent 6.0 client pair, potentially indicates a bigger shift ahead.

In just over a year, BitTorrent Corporation properties have grown to possess an audience that is now half that of LimeWire's. Can one rationally deduce that  $\mu$ Torrent's quick rise is a main contributor to LimeWire's stunted growth? Perhaps, but even as novice music-sharing (what LimeWire does best) evolves into seasoned movie-sharing (what BitTorrent does best) users don't have to choose one application over the other.

If this trend continues, we may see the number of users with multiple P2P clients grow - as of December 2007, 26.9% of P2P users had more than one P2P client. Or, we may see LimeWire lose market share... or both.

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### ***D. Is FrostWire the Next $\mu$ Torrent?***

In our last report we put the spotlight on two new P2P clients that had strong opening growth - similar to  $\mu$ Torrent's early adoption patterns.

FrostWire, an offshoot Gnutella client created by expatriate LimeWire developers, grew from nearly nothing to a presence on 0.5% of all PCs polled between December 2006 and May 2007. That is good enough for a 1% market share.

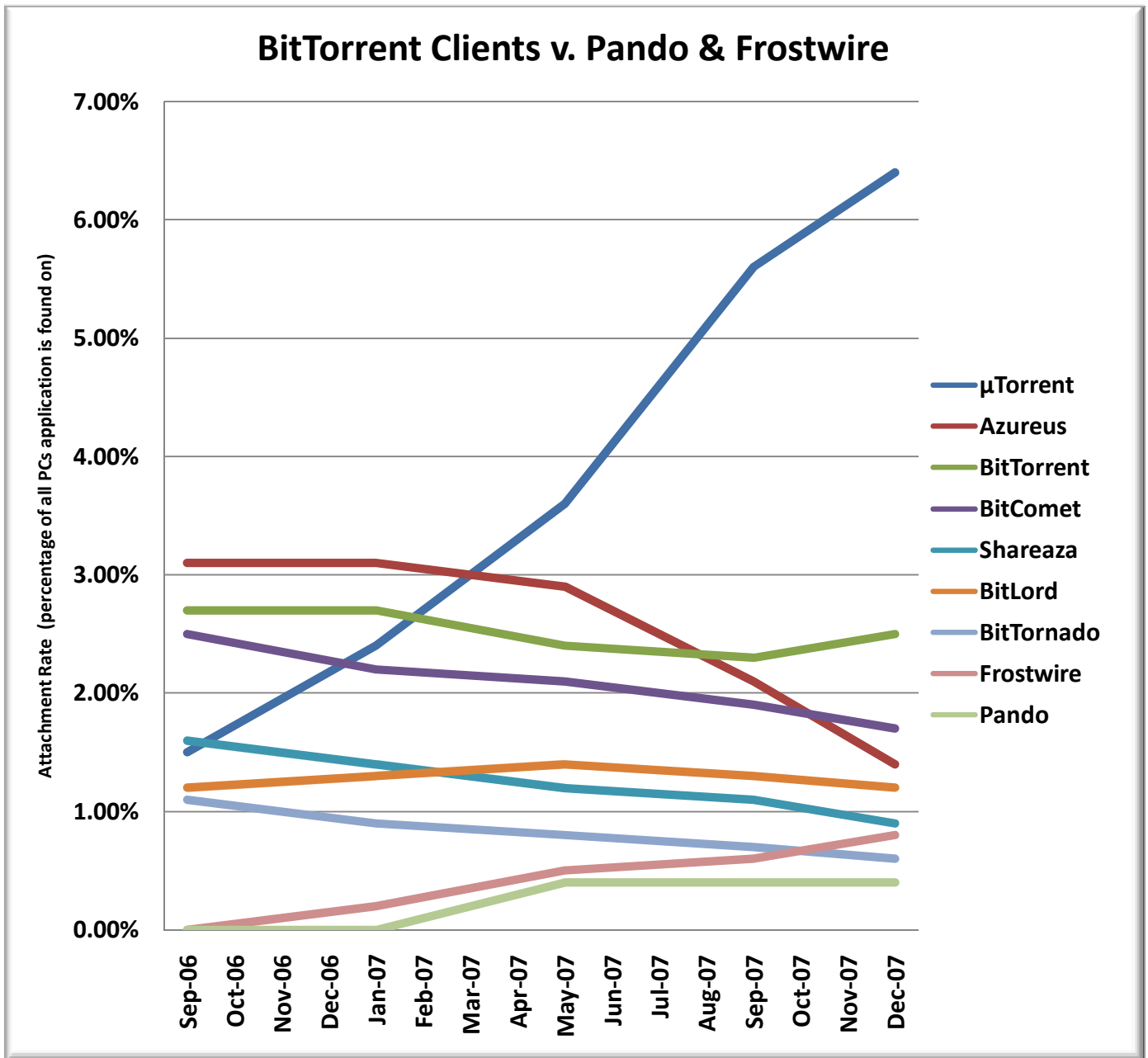
At the end of the fourth quarter, FrostWire continued to mimic  $\mu$ Torrent's early rise with a 0.8% attachment rate, which translates into a 1.7% market share.



Pando appears to have flattened out these past few months, running between a 0.4-0.5% attachment rate. The private client, which rides on its own Pando network, broke the 1% market share barrier once in the month of November, 2007 before settling back the following month to a 0.8% market share. The situation should improve now that the Israeli company has landed \$8.12 million in additional venture capital. Additionally, Pando penned a deal last November to power underlying P2P technology for NBC.

**E. BitTorrent clients versus Pando and Frostwire attachment rates**

Application	Sep-06	Jan-07	May-07	Sep-07	Dec-07	Network
µTorrent	1.50%	2.40%	3.60%	5.60%	6.40%	BitTorrent
Azureus	3.10%	3.20%	2.90%	2.10%	1.40%	BitTorrent
BitTorrent	2.70%	2.70%	2.40%	2.30%	2.50%	BitTorrent
BitComet	2.50%	2.20%	2.10%	1.90%	1.70%	BitTorrent
Shareaza	1.60%	1.40%	1.20%	1.10%	0.90%	Multiple Networks
BitLord	1.20%	1.30%	1.40%	1.30%	1.20%	BitTorrent
BitTornado	1.10%	0.90%	0.80%	0.70%	0.60%	BitTorrent
Frostwire	0%	0.20%	0.50%	0.60%	0.80%	Gnutella
Pando	0%	0%	0.40%	0.40%	0.40%	Pando



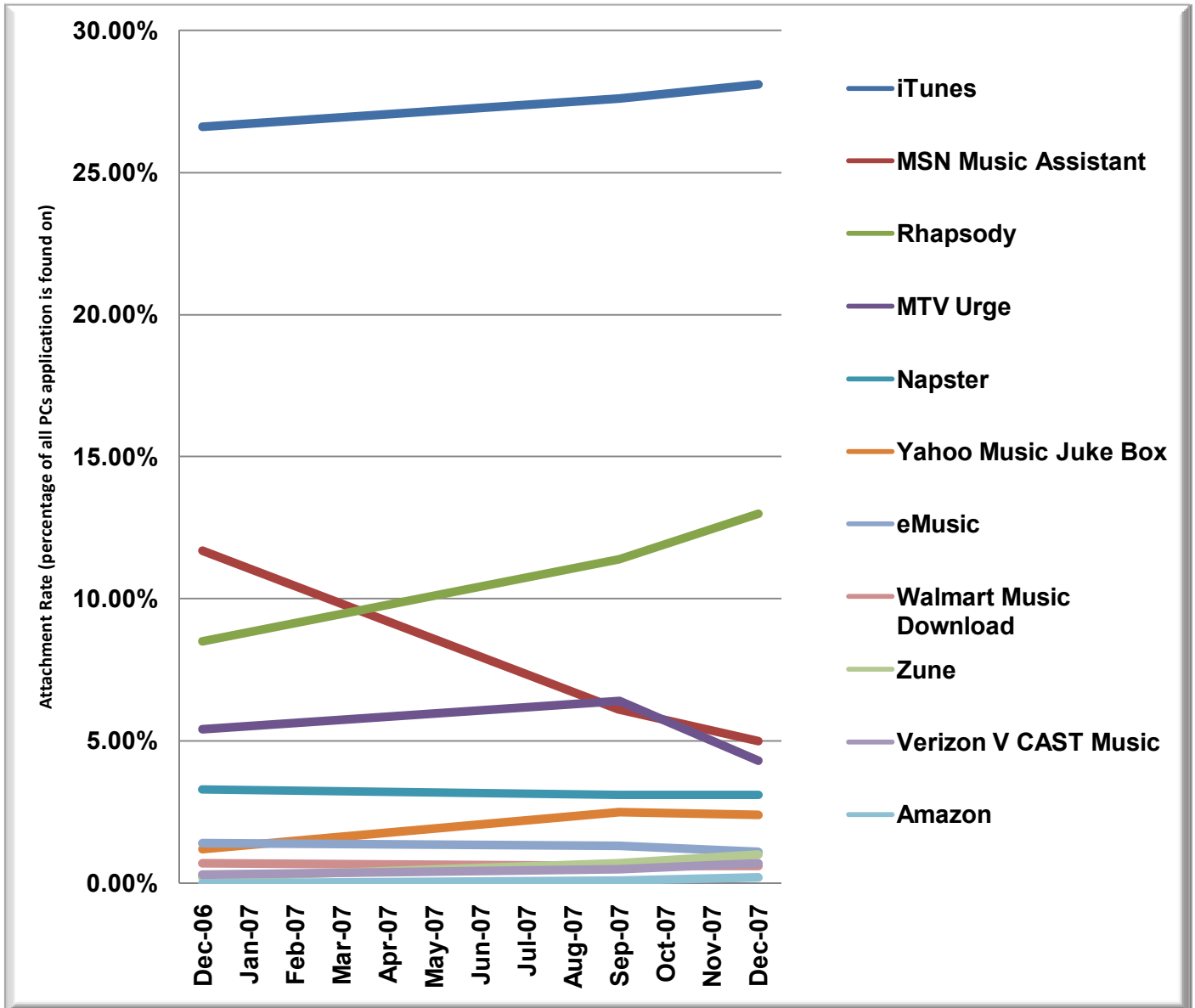


## II. Digital Music eCommerce Applications

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### A. Installation Overview

Application	Dec-06	Sep-07	Dec-07
iTunes	26.60%	27.60%	28.10%
MSN Music Assistant	11.70%	6.10%	5.00%
Rhapsody	8.50%	11.40%	13.00%
MTV Urge	5.40%	6.40%	4.30%
Napster	3.30%	3.10%	3.10%
Yahoo Music Jukebox	1.20%	2.50%	2.40%
eMusic	1.40%	1.30%	1.10%
Walmart Music Download	0.70%	0.60%	0.60%
Zune	0.20%	0.70%	1.00%
Verizon V CAST Music	0.30%	0.50%	0.70%
Amazon	0.00%	0.10%	0.20%





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## ***B. Attachment Rates for Digital eCommerce Applications Drifting Lower***

As mentioned previously, the attachment rate is the percentage of all the PCs polled in this study that house either a specific client or family of applications. In December 2006 and January 2007, digital music ecommerce applications collectively carried attachment rates of 50.1% and 50.6%, respectively.

Since then, there has been a notable and steady downward trend. By December of 2007, the attachment rate dropped nearly 4% to 46.8%.

Much of this drop can probably be attributed to the closure of several digital ecommerce destinations last year, including Virgin Digital, Sony Connect, MTV Urge (merged with Rhapsody), Google Video, and the MSN Music Store (superseded by Zune Marketplace).

Digital Rights Management (DRM) played a critical role in the demise of these businesses. Simply put, none sold music in a format that could play on Apple's popular iPod, severely limiting their reach. Additionally, Microsoft's decision to abandon its PlaysForSure DRM scheme for a separate Zune management technology created more consumer confusion.

The insular Zune protection system - a mirror of the closed iPod+iTunes - alienated a consortium of allied stores. The shift was catalyst for MTV to close its growing Urge site and partner with RealNetworks' Rhapsody. The pair created a joint venture known as Rhapsody America LLC.

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## ***C. iTunes Flat, Rhapsody Charging Up***

Against that backdrop, iTunes continues to be the lead jukebox and ecommerce application. As we mentioned in our last report, there is evidence that iTunes is courting strong repeat purchases and customer loyalty, despite mild attachment increases last year.

Rhapsody, meanwhile, continues to gain ground with another quarter of strong growth. In fact, Rhapsody is the only digital ecommerce application showing any substantial growth during this period. Fueled in part by its fall merger with MTV's Urge, Rhapsody shot up nearly 50% in six months. Rhapsody drove an 8.9% attachment rate in June, 2007 to an 11.4% rate in September, 2007, and an eventual 13% rate in December, 2007.

Most other applications either saw flat growth or a drop during this period. Yahoo Music Jukebox, which saw steady gains in the first half of 2007, leveled to a 2.4-2.5% attach rate starting in September, 2007. Napster has been flat as a pancake all year with an attachment rate of around 3%. Similarly, the Wal-Mart Music Store has stayed steady with a 0.6% rate.

eMusic was also flat, though there was a slight downturn in December 2007 to a 1.1% attach rate from the 1.3%-1.4% rate that service commanded throughout the year.





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#### ***D. V Cast Music and Zune Gaining Mild Q4 Traction***

After riding a 0.4% attach rate for most of the year, V Cast Music saw an uptick in the fall, capturing a 0.7% rate. Those are still quite modest numbers, especially considering the massive advertising campaign dedicated to the service. But Verizon is committed to building a mobile-based music and content revenue stream, one that compensates for flattening voice revenues. It will be interesting to see if Verizon's continued efforts will equate to meaningful growth.

Meanwhile, Microsoft's Zune has finally broken the 1% attachment rate, rising up from a 0.7% rate in September, 2007. Still, those numbers are well below not only iTunes and Rhapsody, but Microsoft's late MSN Music Store whose application once posted double digit attach rates.

The inability of V Cast Music and Zune to make a notable dent in this space could highlight how ineffective traditional high-dollar marketing activities are with this audience. µTorrent found its way onto far many more PCs on word-of-mouth alone...and it did it faster. So did FrostWire.

Amazon MP3 Downloader appeared for the first time on our charts, entering with a 0.1% attach rate in October of 2007, and doubling to a 0.2% rate for December 2007. It will be interesting to see what kind of growth Amazon's DRM-free approach will draw. Encouraging early signs suggest it could be the next Rhapsody, but it's still early. It could just as easily become the next Zune.

### **III. Digital Music Jukebox Applications**

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#### ***A. RealPlayer Still Dropping, but iTunes Flattening.***

RealPlayer continues to bleed, dropping from a 36% attachment rate in September, 2007, to a 34% rate in December 2007. That is a near-10% drop from December 2006 levels of 43.7%.

Microsoft's market-leading Windows Media Player broke above the 70% mark in September of 2007, sporting a 74.8% attach rate. But it has since slid back down to a 72.8 % rate for December.

For the most part the digital music jukebox space has been relatively stable all year, with no breakaway applications appearing. With the exception of RealPlayer, all applications showed either flat growth or a modest downturn. This includes iTunes, which showed a slight uptick. The popular application moved from a 27.6% attach rate in September 2007 to 28.1% rate in December 2007.