



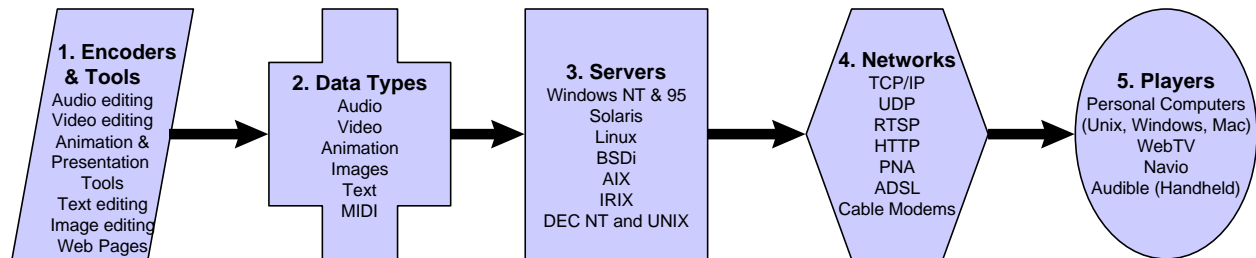
Streaming Media Buyers Guide

Executive Summary

RealNetworks™ is the recognized leader in streaming media technology. The company develops and markets software products and services designed to enable users of personal computers and other consumer electronic devices to send and receive audio, video, animation and other multimedia services over the Internet and corporate intranets.

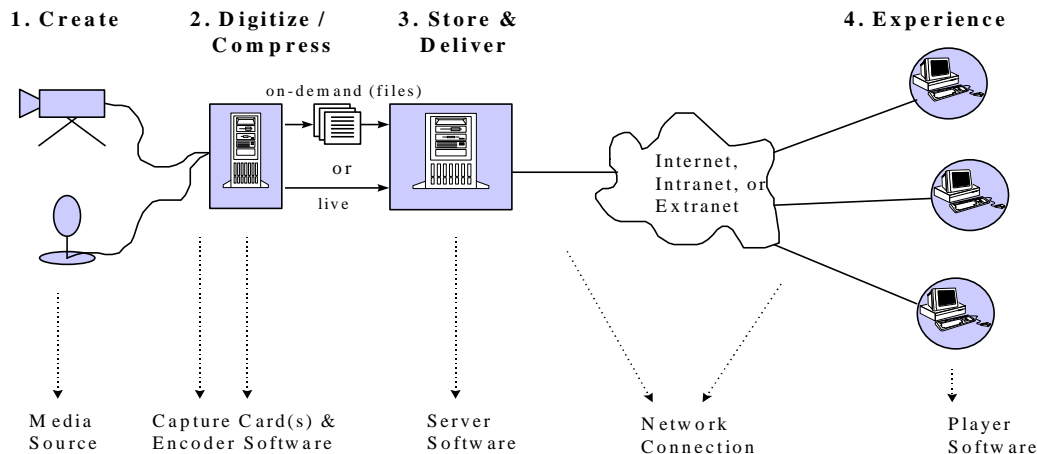
What is Streaming Media?

Streaming media is a method of making audio, video and other multimedia available in real-time, with no download wait, over the Internet or corporate intranets. Streaming media systems consist of the following five elements: **Encoders & Tools** (1), used to create or capture and edit multimedia **Data Types** (2), which are transmitted by centrally located **Servers** (3) over **Networks** (4) to individual client **Players** (5), on a live or on-demand basis.



A Streaming Media System

A typical implementation of a streaming media system might involve two networked computers (one equipped with a video capture card), a video camera and/or microphone, and an audience viewing the content on their PCs.



In the implementation above, a content creator films their event using a standard video camera (1). The computer's video capture card digitizes the video signal, and the Encoder software compresses the digital signal into either a streamable digital file, to be edited later, or a live stream for immediate broadcast (2). This file or live stream is transmitted over a network to a computer with Server software installed (3). (It is also possible to use a single, powerful computer for both encoding and serving). The digitized film of the event is then accessed on a live or on-demand basis by multiple end-users with Player software on their personal computers or other personal electronic devices, such as WebTV (4).

Key Evaluation Criteria When Choosing a Streaming Media System

There are four key criteria for evaluating a streaming media system: **Product Quality**, **Cost of Ownership**, **Corporate Fit**, and **Return on Investment**.

Product Quality

Most users agree that full-screen video, stereo sound, and crystal-clear, full motion display at lower bit-rates through RealFlash is proof of technical excellence, and RealSystem 5.0 meets all of these criteria. Yet actual quality of user experience is a more subtle and subjective metric – so in addition to quantify it in technical terms, corporations should also consider the product's reputation in the popular market.

- **Power:** RealSystem 5.0 has fault-tolerant servers, encoders which can do live audio encoding on 120MHz machines, and players which show 50% greater frame rates, 80% less packet loss, and are 8x less likely to stall on playback than our nearest competitor¹. Our Codecs (compression-decompression algorithms) are from some of the best-known names in the business, including Dolby Laboratories and Sipro Lab Telecom.
- **Rich Experience for End Users:** RealSystem 5.0 operates as a standalone client, ActiveX control set, or plug-in to most popular Web browsers, including Netscape Navigator, Microsoft Internet Explorer, and AOL's browser. RealSystem 5.0 streams audio (from 14.4 modems to CD-quality voice), video, Macromedia Flash animation (including images and text), audio synchronized with slides, and audio synchronized with URLs.
- **Awards and Recognition:** RealNetworks products won an average of one award every two weeks during the last half of 1997 alone – including such distinctions as the *PC Computing A List*, *PC Magazine Editor's Choice*, *C/Net Award for Internet Excellence*, *Video on the Network People's Choice Award*, and *Windows Sources Experts Choice*.
- **35 million downloads:** RealNetworks has downloaded more than 35 million players, 100,000 servers, and 250,000 encoders, not including those bundled with Microsoft Internet Explorer. More than 85% of internet sites using streaming media are using RealAudio®, RealVideo®, and/or RealFlash™ – and only RealNetworks products can take advantage of the sites' latest RealSystem 5.0 technology.

Cost of Ownership

Leading companies have learned to look beyond the initial product cost of software to the overall cost of ownership – from ease of initial implementation to administration, upkeep, and use.

- **Ease of implementation:** RealSystem 5.0 products run over existing IP networks. The servers work with existing web servers and legacy databases, and ship with web and database templates for easy implementation. Furthermore, all products are single install – not separate parts for live, high bit rate, and on-demand transmission.
- **Web based administration:** All primary functions of all RealServers™ can be administered from a central point, from anywhere on the Internet, through any standard Web browser. Even multiple servers' traffic can be monitored in real-time.
- **Industry Support Through Third-Party Tools:** In addition to RealNetworks standard RealPublisher™, RealEncoder™, RealTools™ and presentation package plug-ins, more than 41 other companies produce tools which support RealAudio, RealVideo, and RealFlash data types – including such well-known products as Adobe Premier and PageMill, Microsoft FrontPage, Avid/Digidesign ProTools, and Macromedia Director and Flash.

¹ KeyLabs Report, August 1997, Netshow 2.0 vs RealVideo 4.01

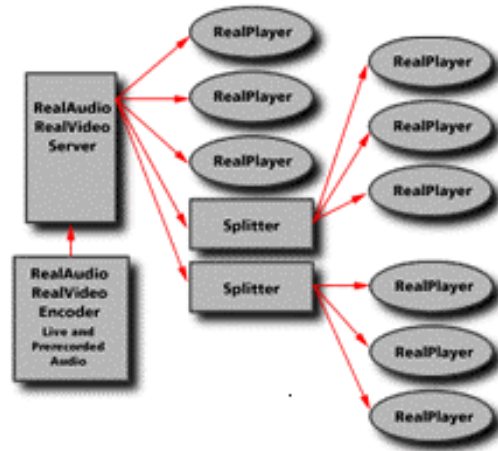
Corporate Fit

Corporations grow and applications change over time. The streaming media system in which a corporation chooses to invest should be able to move with the corporation, rather than forcing the corporation into a predetermined mold.

- Platform Breadth:** RealSystem 5.0 products are available on 13 different platforms. No need to invest in additional operating systems or new infrastructure. Whatever your corporate platform, now or in the future, it's likely RealNetworks has a solution for you.

Platform	RealSystem
Intel (x86)	
Windows 95	X
Windows NT 4.0	X
UNIX	X
Sun Solaris	X
SunOS	X
SGI-IRIX	X
FreeBSD	X
Linux	X
BSDi	X
HP/UX	X
IBM AIX	X
DEC Alpha - UNIX	X
DEC Alpha - Win NT	X
Apple PPC	X (Players & Tools)

- Data Type Variety:** RealSystem 5.0 streams audio, video, vector animation (graphics, text, images), and synchronized slideshow or Web page presentations. RealSystem 5.0 is the only streaming system to incorporate Macromedia Flash vector animation in streaming products, producing crystal-clear full-screen animation over 28.8kbps modems – a feature used by companies as diverse as Disney and GE Information Systems.
- System Scalability:** RealSystem is designed for the Internet and corporate intranets. It incorporates bandwidth negotiation, to deliver the best signal to players automatically at any bandwidth. Servers run on a range of operating systems and machine specifications, to serve from the desktop to the enterprise. Splitters reduce network traffic. IP Multicast allows audiences of up to 50,000+. Independent labs have confirmed that historically RealNetworks' products average capacity is 2x more viewers per NT server and 3.6x more viewers per Unix (SGI) server than major competitors' products².
- Network and Database Interoperability:** Not only does RealSystem 5.0 support HTTP cloaking over TCP/IP (so even clients behind non-UDP compliant firewalls can receive broadcasts), but the leading firewall vendors such as Checkpoint all provide for RealNetworks transmission – so even behind corporate firewalls, the majority of your audience will experience the full quality of RealNetworks streams. RealSystem 5.0 also supports IP Multicast, UDP/IP, PNA and elements of RMA. In



² KeyLabs Report, August 1997, NetShow 2.0 vs RealVideo 4.01

addition, RealSystem 5.0 works with Site Server's MS SQL, Oracle, Sybase, Informix, mSQL and other ODBC compliant databases, as well as Netscape Enterprise server, Microsoft IIS, and Apache and other common Web servers.

- **Open Standards:** All streaming media systems incorporate **three parts**: codecs, file formats, and transmission protocols. RealNetworks draws from multiple, well known companies codecs (such as Dolby Laboratories and Sipro Lab Telecom), is involved in ASF v2 file-format specification, **and** was one of the initiators of the IETF-recognized Real-Time Streaming Protocol (RTSP). It's not enough to have one part of the system be open: RealNetworks has all three parts.
- **Mature Products and Industry Experience:** RealNetworks brought sound to the Internet with RealAudio 1.0, and is now shipping final "gold" versions of the fifth-generation product, RealSystem 5.0. Along the way we've done major installations for such companies as Boeing and been incorporated into such leading products as Avid/Digidesign Pro Tools and SGI's MediaBase. Our business is focused on streaming media, and we know how to serve the corporation, which is how we've built our market leadership position.

Return on Investment (ROI)

A primary aspect of any corporation is to grow revenue. Streaming media should be more than a facilitator of that process; it should be an integral part of the corporation's online strategy for revenue generation.

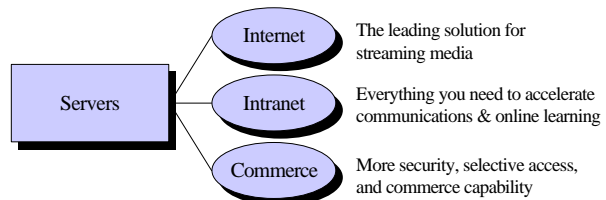
- **Live, on-the-fly content / ad insertion:** RealSystem 5.0 lets the host automatically "stitch together" a set of content clips through the use of a playlist to create seamless presentations. Alternatively, presentations can automatically add content clips from a predetermined set into the stream in live-time, for advertising insertion or bulletins.
- **Security / Commerce Capability on Internet & Intranet:** RealSystem 5.0 is the only server and player system with out-of-the box, cross-platform, embedded protocol-level security features, allowing hosts to password-protect, restrict and track content.
- **Competitive Advantage:** Even if used solely for Web site marketing purposes, RealNetworks products create 34% more sales, 28% more traffic, 33% longer visits, and 38% more clickthroughs³. The results are clear: sites using RealServer are more effective at selling their products.

What do I need?

To begin streaming media, a Web site or corporation can choose to use any combination of RealNetworks' RealSystem 5.0 products, Real Broadcast Networks™ **hosting service**, and RealNetworks Consulting Group **integration and customization services**.

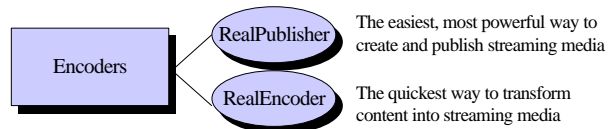
RealSystem 5.0 Components

The purchasable corporate standard RealSystem 5.0 components are shown. There are also free evaluation and personal use versions of all RealSystem 5.0 products.



Real Broadcast Network

RealNetworks and MCI have teamed up to offer a hosting service, capable of reaching tens of thousands of concurrent users. Using Real Broadcast Networks, corporations get a 24x7 dedicated team providing an end-to-end outsourced solution – especially useful for broadcasting larger events, such as shareholder meetings.



Consulting

The RealNetworks Consulting Group is available to provide customization of applications, implementation assistance for larger projects, or initial installation assistance and training.



³ 5/97 survey of 550 RealServer customers. <http://www.real.com/server/results.html> for details.

Support

RealNetworks provides dedicated support with all products. RealNetworks technical support is focused on the core business of streaming media, so corporations receive the best quality of service – in fact, InfoWorld magazine said “...it should come as no surprise that [RealNetworks’] provides outstanding technical-support resources”.

Contacting RealNetworks

RealNetworks (NASDAQ "RNWK"), formerly Progressive Networks, based in Seattle, WA, is the recognized leader in the streaming media market. It develops and markets software products and services designed to enable users of personal computers and other consumer electronic devices to send and receive audio, video and other multimedia services using the Web. RealNetworks can be found on the World Wide Web at <http://www.real.com>

An index of the most recent **press releases and awards** can be found at <http://www.real.com/corporate/index.html>

We welcome all inquiries.

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