

**Product Report:** Helix Universal Server  
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## **Introduction**

Video streaming is a method for transferring video such that it can be processed as a firm and continuous stream. With streaming, an end-user can start presenting the data before the whole file has been transmitted. On distributor side of streaming channel, video servers have been used for delivering a video content.

The goal of a video server is to match end users to video content, store and retrieve video data as efficiently as possible, transmit it across the network continuously without interruption. To accomplish this, specialized video server applications software runs on a dedicated video server hardware that is optimally configured for real-time video delivery. While video server application is available from numerous vendors, including Oracle, Starlight Networks, Microsoft, and RealNetworks, the last two shares most of the today's video streaming market.

Windows Media Technology is a set of technologies from Microsoft. It includes an end-user application (Windows Media Player) and a server and distribution application (Windows Media Technology Server – WMT 4.1).

RealNetworks also offers both end-user sides' application (Real Player) and a server and distribution application (Helix Universal Media Server).

In following text, it will be presented features of Helix Universal Media Server with focus on video streaming application and comparison with major rival Windows Media Technology Server.

## **Features**

The Helix Universal Server is designed to reduce the cost of digital media delivery by streaming all major media formats. According vendor it can deliver over 10,000 concurrent audio streams on standard hardware with Linux OS and 20 kbps per stream.

Using the most mature and expansive set of digital media APIs standardizes Media application development.

It improves user's experience with server fail-over capabilities that automatically routing client requests to back-up server in the event of service failures.

User can choose one of the following operating systems: Windows, Unix, Linux, HP/UIX, IBM/AIX and Solaris.

## **Comparison**

While various features like user control, setup of software etc. are hard to compare because it depends of many factors. In addition, these features are less important comparing with video streaming bandwidth (number of possible users) and price. A price-bandwidth ratio, and reliability are the most important features for potential buyer.

In [1] has been reported comparison between Windows Media Server and RealNetworks Helix Sever. Tests are done on the same hardware with the same operation system (Windows NT and Linux). For video streaming applications, two tests were performed: 225 Kbps and 500 Kbps audio and video streaming. Number of connections is OS dependent and for Windows NT OS, following result has been reported:

Server Application	225 Kbps	500 Kbps
WMT 4.1	320	170
Helix Universal Server	1200	770

For Linux OS it has been reported number of connection only for the Helix Universal Server since WMT 4.1 does not support Linux version. Performance of the Helix Universal Server is slightly better when system operate under Linux OS then under Windows OS: 1380 connection for 225 Kbps and 900 Kbps for 500 Kbps.

From aforementioned numbers we can conclude that the Helix Universal Server outperforms WMT 4.1 several times.

Second issue is price, and according [2] and [3], price for Standard version of the Helix Universal Server is \$1999.00 US dollars and for standard WMT 4.1 version is \$999.00 US dollars. Significantly better performance justify higher price of the Helix Universal Server.

### **Additional Info**

Initially was reported in [4] that the Helix Universal Server has significant security hole which could allow attackers to run code of their own choosing on a user's machine (buffer overrun). That was corrected in latter version.

Behind the Helix Universal Server is significant community of application programmer organized at [5], where user can download various applications and find information about the server applications.

### **Reference:**

- [1] <http://www.keylabs.com/results/realnetworks/helixcomparativeload.pdf>
- [2] <http://www.realnetworks.com/products/server/index.html>
- [3] <http://www.microsoft.com>
- [4] <http://www.atnewyork.com/news/article.php/1560601>
- [5] <http://www.helixcommunity.org>