

## Burstware Delivery System

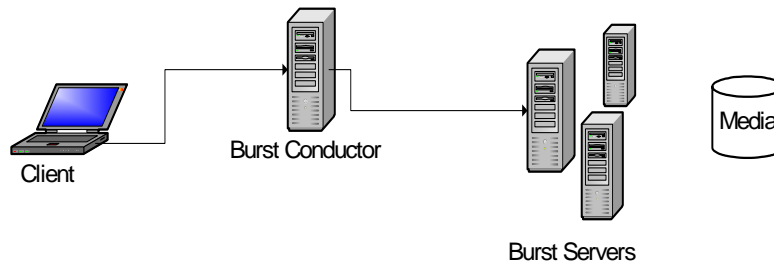
### Introduction

The Burst.com's Burstware Delivery System is a system architecture designed to improve delivery of streaming media in any format. The company has developed a series of products that utilize their proprietary algorithms to improve the delivery of media to a client. They have coined their technology as a "Burst" of media. The goal of their systems is to improve on Constant-Bit-Rate media delivery by "bursting" media to the client. They have also designed system architecture to improve the reliability of media delivery.

### The Product

The Burstware delivery system contains a series of components that work together to deliver streaming media. The application can stream any of the major media types such as Quicktime, MPEG1, MPEG2, MPEG4, and AVI.

Below is an overview of the system architecture:



The system consists of a client (with a special plug-in) that connects to a Burst Conductor. The Conductor is a controller that manages the connectivity of clients to the media servers. Upon a client request, the Conductor determines the least loaded server and connects the client to that server. It also manages failover of any Burst Server. It allows for the system to be scalable and fault tolerant. By bursting the media when the bandwidth allows, the system maximizes network utilization.

The main goal of the system is to improve on Constant-Bit-Rate streaming by "bursting" media. At one end of the system is a client with a large cache. The server on the opposite end sends media in "bursts", which are chunks of media greater than what the client can play. Burst.com has patented this idea as "Faster-Than-Real-Time". The client's cache fills with the media and the client plays the media directly from the cache. Under this method, the client should have a considerable amount of media and should not show signs of jitter or delay while playing.

## Architecture Comparison

Burstware differs from other streaming technologies:

Constant-Bit-Rate Streaming – Streams media at the same rate regardless of network issues or client playback problems.

Edge Serving/Caching – Streams (via CBR) media from geographically local servers. These servers either have a copy of the media or request the media upon user request.

## Analysis

The Burstware Product line was reviewed by an independent professional services organization, Approach, Inc to compare/contrast the technology with other major streaming servers such as Windows Media Server.

Below is a summary of the results of their tests:

Burstware is a more scalable solution than other streaming systems.

Burstware delivers media at a higher quality under adverse network conditions.

Burstware has a far lower cost of ownership than traditional media systems.

Burstware streams multiple media formats without the need for special software or hardware.

Burstware's system has a better load balancing system than traditional media systems.

## Conclusion

Burstware is a far more reliable and scalable solution to deliver media. Its patented idea of sending large amounts of media improves overall playback quality than traditional implementations. Cost comparisons also have proven that the solution is far more cost effective than traditional implementations.

## Resources

Allen, Arthur, "Optimal Delivery of Multi-Media Content Over Networks",  
[http://www.burst.com/new/technology/optimal\\_delivery.doc](http://www.burst.com/new/technology/optimal_delivery.doc).

Approach Inc, "Streaming Media Technical Analysis",  
<http://www.burst.com/new/technology/approach.pdf>, November 2000.