

# Advanced Video: Prepare to Accelerate

Arroyo Video Solutions makes software and systems to propel faster deployment of advanced digital video services.



Arroyo enables you to deliver to your subscribers more advanced video services, sooner.

Arroyo's open architecture Video Services Platform lets you decide what on-demand, commerce and interactive video services you want to deliver — and gets them to more of your customers, faster.

Arroyo's advanced technology produces order-of-magnitude increases in the volume of video content that can be manipulated and streamed.

Arroyo's open architecture lets you select best-in-class applications from top developers with full confidence that they'll integrate seamlessly with Arroyo's platform.

Arroyo's embrace of standard hardware solutions produces cost savings that translate into accelerated returns on investment.

# Breaking the speed barrier in advanced video deployment.



**It's all about speed. Arroyo's new headend-based, open architecture Video Services Platform empowers you to get more advanced digital video services to market sooner, and on a larger scale, over your existing infrastructure. From HD on demand to E-commerce on TV, Arroyo gets the applications you choose into the market quicker, more prolifically and more profitably.**

It starts with vision. Ours is to overcome problems that historically have plagued promising new, revenue-generating video services. Proprietary technology solutions limit providers' choices and, once installed, hold providers captive to supplier-dictated delivery schedules and upgrade limitations. What's more, niche-oriented platforms mean a different supplier for each service. And proprietary hardware solutions have left video providers stranded as requirements grow and technology progresses — but proprietary platforms don't. That slows down service expansion, absorbing money that could be used to deploy new services. Eventually, you face forklift change outs to reach the next stage of service scale and subscriber penetration.

Arroyo overcomes those legacy problems and helps speed your services to market.

## Apply thyself

It's amazing what a burst of speed can do. With Arroyo, the range of services and applications you can drive into the home with scale and certainty is unlimited.

Arroyo allows revenue-rich, forward-thinking applications such as on-demand television and networked PVR to achieve mass-market deployment scale. But that's just the beginning.

Addressable, customized advertising — the ability to tailor advertising content to unique households and set-tops — is achievable and deployable with the Arroyo Video Accelerator engine. High-definition television streams are tailor-made for Arroyo. And advanced viewer-interaction services, from live customer care to rich media commerce, integrate perfectly with the Arroyo Video Services platform.

The need for a reliable, scalable solution is clearer than ever. Customers have gotten a taste of exciting new services that ride the digital video infrastructure, and their appetites are growing.

## High-definition Television

Projected to grow from 5 million U.S. households in 2004 to 29 million by 2008. The demands on cable networks and storage/server platforms are only beginning.

## On-Demand Television

Available in nearly half of all U.S. cable TV markets in 2004, on-demand could grow to reach 70 million homes in five years as consumers become accustomed to what-you-want, when-you-want-it television. More streams, more revenues, more opportunity than ever.

## TV Commerce

Rich in possibility and in opportunity. With increased innovation coming from satellite TV providers, TV commerce looks to be an increasingly important lever in the competitive multichannel market.

## Transactional Advertising

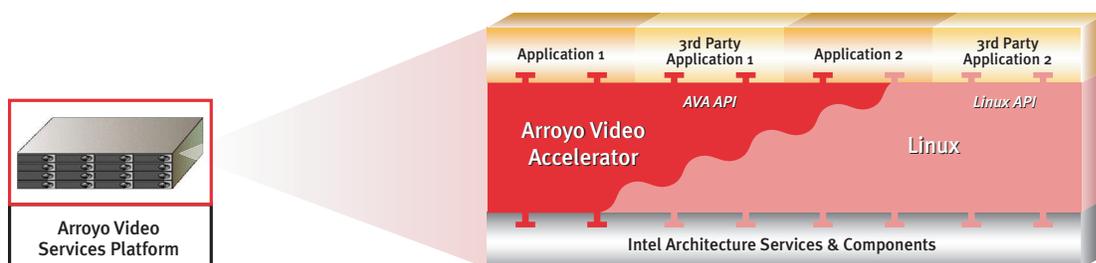
Long the dream of targeted marketing enthusiasts, it's on the cusp of a genuine breakout. Click-throughs to longer-form advertising and delivery systems for household-specific creative are going from drawing board to living room.

## Riding the cost curve

It's a harmonic convergence of favorable economics: Demand is exploding for advanced video services at the same time that costs for core digital technologies spiral downward.

Arroyo takes advantage of this powerful confluence by incorporating industry-standard hardware and systems.





Arroyo Video Services Platform Detail

By embracing standard technologies, Arroyo lets operators deploy more and spend less. There are no proprietary, hard-wired systems to worry about. And no obsolescence issues to fret over.

Arroyo uses best-of-class hardware and processing technology so customers can enjoy continuing price declines in mainstream information technology systems and components. While achieving application performance metrics that set a new standard all their own.

### Open for business

Until now, many of the possibilities of the new digital video era have been restrained artificially by the imposition of closed systems that dissuade innovation and discourage creative development. Worse, a mounting array of proprietary platforms means crowded headend racks, increased operating costs and the unwelcome prospect of forklift upgrades.

The Arroyo platform is different. It's open and extensible, with published APIs inviting independent developers to create innovative applications that flow over an Arroyo-propelled network that's built atop industry-standard hardware and networking systems. With Arroyo, new applications ranging from on-demand advertising to TV commerce take the form of software upgrades – not expensive hardware installations.

An open architecture is just one of the principles being applied by Arroyo's engineering group as we work to enable network operators to harness the full capacity of new broadband video infrastructures. Arroyo's platform not only provides application developers an open, accessible environment for innovation, but it also arms them with a level of performance unmatched by legacy digital video systems.

### Enabling the revolution

What video providers need is a solution to scalability and volume challenges associated with today's proprietary digital video platforms. We know, because they've told us:

- “We cannot deploy the services we want because proprietary environments force us to wait for a single vendor.”
- “Solutions created for Movies On Demand won't scale to thousands of hours of content and many thousands of sessions.”
- “Industry standards are our direction for the future. Ethernet, standard hardware and open software will allow us to ride enterprise price/performance curves.”

### Arroyo exists to solve these problems, and more.

Arroyo's mission is to provide service enabling, scalable, open architecture Video Services Platforms to MSOs and other video providers, enabling them to drive advanced video applications into every home.

To get there, we combine open architecture design with industry-standard hardware and a whole new approach to video processing. The result is simply...more. More choice in applications, more control for providers, more scale in deployments, and more speed to market. Anything less would be...well, what you already have.

Arroyo Video Solutions. Accelerate the opportunity.

*“For a mass market opportunity to truly develop around next generation and on-demand video services, the media industry must have a highly scalable and cost-effective solution. Arroyo's platform delivers those capabilities.”*

– Neil Sequeira, Time Warner Investments



## The Arroyo platform: A fresh burst of energy

Founded by networking veterans who produced industry breakthroughs in technology, performance and capabilities, Arroyo Video Solutions brings to television the same sort of advancements in scale and possibility that enabled data networking to flourish as a mass-market phenomenon in the Enterprise.

Arroyo introduces order-of-magnitude advancements to the nerve center of a digital video delivery platform. The central feature of the Arroyo Video Services platform is the Arroyo Video Accelerator, a software-based approach that produces dramatic increases in the amount of activity that can be conducted from industry-standard processing and storage technology.

To achieve this, Arroyo's team of experienced, veteran engineers and problem-solvers set out to manipulate digital video in a whole new way. The difference is remarkable. The Arroyo Video Accelerator introduces profound improvements in the speed with which digital video can be processed, manipulated and delivered — unleashing new opportunities for deployment scale and speed to market.

Importantly, Arroyo does the heavy lifting at the headend — allowing you to overlay new, revenue-rich advanced video services atop your existing platform without the need to replace consumer equipment, roll trucks or undertake exhaustive equipment upgrades.

Your technicians will thank you. So will your CFO. And, you'll be able to introduce a welcome new feature into advanced video applications: Scale.

With Arroyo, operators can introduce advanced services more rapidly, more affordably and with greater scale than ever before.

## Arroyo Partnerships

Arroyo has established interoperability and compliance alliances with a range of partners including the major head-end vendors, server vendors and back-office systems and billing vendors.

Speak to us for more details.

## About Arroyo

Arroyo was founded in 2001 with investment support from:

- Comcast Interactive Capital
- Doll Capital Management
- Foundation Capital
- Time Warner Investments

Arroyo's senior management team includes founder and CEO Paul Sherer, the former chief technology officer of 3Com, and founder and chief scientist Drew Major, the founder of Novell.

*“Advanced video services represent a significant revenue opportunity and competitive differentiation for cable operators. We are excited about this market opportunity and believe that Arroyo's architecture, world-class development team, and innovative approach make the company an attractive investment for us.”*

*– Warren Lee, Comcast Interactive Capital*



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