

IBM and packetvideo Network Solutions: Meeting the multimedia service delivery challenge



The relationship gives service providers a single interface that facilitates more effective management of both content and services.

Tapping the potential of 3G

The world has gone mobile and the marketplace is growing by leaps and bounds, thanks to the proliferation of wireless devices and high-bandwidth third-generation (3G) networks. Mobile service providers have invested billions in licenses to gain access to these networks, and content owners are investing in the creation of mobile-specific products to take advantage of the new bandwidth. All of the stakeholders now face the challenge of making those investments pay off.

Multimedia products are the key to tapping the potential offered by 3G. Service providers are working to create highly profitable multimedia services that deliver a superior customer experience; “sticky” composite

Highlights

- **Helps reduce time-to-market for new packaged services**
- **Utilizes next-generation service delivery platform by IBM to integrate isolated services into innovative composite offerings**
- **Helps improve return on investment through use of cost-effective, reliable, scalable IBM @server[®] BladeCenter[®] servers**
- **Leverages the relationship between IBM and packetvideo Network Solutions to offer a best-of-breed solution for multimedia service creation and delivery**

services that allow them to cross-sell and that generate high customer loyalty. It's a highly competitive market in which only the most innovative and efficient companies will thrive.

Innovation alone is not enough. The market for these new services is so crowded and is growing so rapidly that time to market is a critical factor. Services must not only be developed quickly, they must also have the ability to change and scale in response to shifting market demands.

A unified platform

Mobile services are, of course, nothing new. Text messaging, advanced voice services, e-mail and mobile Web access have been available for years. This legacy of existing services carries with it one of the greatest challenges facing service providers working to tap the new market: the difficulty of quickly creating and deploying new composite services to capitalize on market demand. The diverse legacy services exist as isolated "stovepipes" or silos, with separate databases, different software and proprietary hardware, making it very difficult and expensive to develop new services that combine aspects of existing ones.

There is a clear need for a robust, unified platform for the development, delivery and management of new multimedia services. A platform that is flexible, highly scalable and open; one that delivers a high return on investment and gives service providers the agility they need to compete effectively. To bypass the integration and compatibility difficulties posed by existing proprietary solutions, the platform should embrace emerging global standards such as those produced by the 3rd Generation Partnership Project (3GPP and 3GPP2).

IBM has teamed with packetvideo Network Solutions (pvNS), a subsidiary of Alcatel, to define a combined offering that addresses this need, using the IBM Service Delivery Platform (SDP) and pvNS applications, running on IBM @server BladeCenter servers.

The pvNS advantage

packetvideo Network Solutions is a premier provider of mobile media software, addressing the growing market for mobile video and audio services with solutions that cater to all links in the mobile content value chain—operators, application service providers, aggregators, broadcasters and media companies.

The pvNS offering includes an end-to-end mobile media services system that consists of multimedia server, encoding and decoding solutions. Collectively, these form a powerful, comprehensive standards-based system for the creation and distribution of multimedia to mobile devices. The pvNS applications enable video-on-demand encoding, live video transcoding and standards-compliant streaming. In addition to these core capabilities, pvNS offers two compelling value-added applications, Mobile Interactive Music and Mobile Interactive TV, which bring superior mobile multimedia services to end users. The entire suite of applications is optimized to run on IBM @server BladeCenter, delivering high reliability and enabling low total cost of ownership.

At the heart of the system is pvServer, which supports streaming, downloading and progressive downloading to wireless devices. It is 3GPP and 3GPP2 compliant carrier-class technology that is scalable and reliable, and it enables a low total cost of ownership. pvServer has a proven track record, being the power behind the world's longest-running commercial deployment of mobile multimedia, DoCoMo's V-Live FOMA service.

Other key elements of the solution include:

- *MMP, which provides the capacity to encode video clips on demand singly or in batches. This helps meet the growing need for “near live services”—services that are derived from pre-programmed playlists that can be shuffled, optimized and added to on demand.*
- *Multimedia Transcoder, which simultaneously transcodes live video feeds for subscribers in 2.5G and 3G networks. It can accept both IP feeds and analog inputs.*
- *Load balancers and cascading streamers for maximum scalability and redundancy of traffic delivery.*
- *A number of interface options to allow for the integration of billing, digital rights, content management and system management.*

The IBM Service Delivery Platform

Applications from packetvideo Network Solutions leverage the capabilities of the IBM Service Delivery Platform (SDP), a powerful tool designed to optimize and automate the service lifecycle process, from development, to deployment, to execution, to management. IBM is an industry leader in implementing large-scale SDPs that quickly deliver innovative composite multimedia services and measurably improve business results.

By basing new services on this IBM platform, providers can share common elements such as processes, code and databases across both new and existing services. This not only makes the lifecycle much more rapid and efficient, it also helps to simplify management of the service portfolio. The sharing of databases and service components in an open standards-based service-oriented IT architecture helps alleviate and even eliminate isolated silos of information and functionality, making the integration of existing offerings such as billing and customer service with new services far easier.

With the simplification of the diverse, proprietary, difficult-to-integrate infrastructure that has marked service creation and delivery in the past, the SDP is able to deliver its greatest benefit: rapid time-to-market, which is the key to market competitiveness, reduced time-to-revenue and a faster return on investment.

IBM @server BladeCenter

The service creation and delivery market has specific needs when it comes to server hardware. Because of the unpredictability of the marketplace, the server must be open and based on accepted industry standards to enable compatibility and investment protection.

It also must be rapidly scalable to meet growing service demands. Telecommunications service providers depend on customers being able to access services at all times, so reliability is critical. And with a tight, highly competitive marketplace, cost-effectiveness is key.

The innovative IBM @server BladeCenter family of chassis and blade servers provide all this and more. The BladeCenter family is a centrally managed server platform that provides near-continuous availability through hot-swappable blades and a fully redundant system architecture that reduces single points of failure. These BladeCenter capabilities enable resilient, reliable service delivery infrastructures that help limit the possibility of service disruptions, thereby positively impacting customer loyalty and retention.

Multiple blades occupy a single footprint with shared components, which can reduce cooling, cabling and power requirements—so operating expenditures can be low. BladeCenter also helps reduce cost by using common off-the-shelf components, reducing capital expenditures.

BladeCenter offers centralized, autonomic, self-optimizing management capabilities, which reduce the need for user intervention while boosting system reliability. It also offers features that facilitate workload sharing, which helps to optimize IT expenditures through more effective and efficient use of next generation network assets.

Scalability is enhanced through the advanced design of the BladeCenter family. The incremental cost of additional blades is relatively low, since they share cooling fans, power supplies, cabling and I/O hardware with the other blades in the system.

The result is a server platform that offers a low total cost of ownership compared to traditional servers, without sacrificing scalability, reliability or manageability.

The combined solution:

Recipe for success

The total IBM and packetvideo Network Solutions offering helps service providers in several ways. First and foremost, the combination of powerful pvNS applications and the IBM Service Delivery Platform helps providers bring new offerings to market much more quickly and enables more efficient management of those offerings once deployed.

The total cost of ownership of the solution is affordable, thanks to the high degree of integration and the use of a single platform for development, deployment, execution and management, in addition to the cost-saving features of the IBM @server BladeCenter.

Finally, the relationship between the two companies gives service providers a single interface that facilitates more effective management of both content and services. The integration of the package leverages the strengths of both partners, delivering a best-of-breed solution for effective, efficient service development and delivery.

For more information

To learn more about how the IBM and packetvideo Network Solutions offering can help your company become more competitive in the multimedia service market, please contact your IBM representative, or visit us at:

[ibm.com/industries/
telecommunications](http://ibm.com/industries/telecommunications)

For more information on packetvideo Network Solutions, visit:

www.pvnetsolutions.com



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