Integrated Digital Video Transcoding

Powering massive Content Delivery Workflows demand with accelerated video signal compression efficiency

Traditional Broadcast has introduced digital audio and video compression standards, to the worldwide commercial success of digital television distribution. Today, the industry faces a mass proliferation of content and devices that drive unprecedented needs for fast adaptation, multiplied value chain business and technical delivery models for content to meet mass entertainment experience on presenting devices to an audience of one.

Transcoding solutions are mandatory to realize the adaptation of content and device profiles delivery over the Internet, over IPTV including Video on Demand, as well as to mobile devices and next-generation entertainment lifestyles. They are yet forecasted to keep being increasingly used by broadcast industry applications from Archive to News, including on-the-scene production.

Implementing workflow efficiencies along with advanced video compression standards and converging hardware and software technologies to IP, enables service providers to meet and drive content coverage throughout the migration of production models, distribution models, and consumption patterns on the fly and on the move.

Adapt to an unprecedented changing entertainment marketplace with HP Integrated Digital Video Transcoding

The HP & Intel partnership on the Entertainment & Media, Telecommunications and both IT expertise, make it uniquely positioned to deliver value to the growing content lifecycle ecosystems.

Together with our trusted Broadcast, New Media and ISV partners, customers rely on HP Communications, Media and Entertainment to deliver solution innovations and integration services that mitigate the industry challenges forced by the enablement of digital video transcoding becoming integral part of growing phases of their expanding workflows.
HP & Intel approach to Digital Video Transcoding

The HP Intel Solution Center advocates a step-by-step approach to establishing and operating content lifecycle workflows that successfully include robust and quality efficient digital video transcoding processing requirements. Several key objectives must be attained to make this initiative successful.

These recommended steps for modular phased approach flexibility include and are not limited to:

- Business processes assessment of the workflows requiring digital video transcoding and processing
- Target markets assessment, content profiles and device profile specifications for content delivery
- Test and Validation of the digital video transcoding service enablers meeting the specifications, latency and quality output conforming agreement levels

HP & Intel Key hardware components

HP C3000 Carrier Grade Solutions

- The HP BladeSystem C3000 Enclosure brings new capabilities to HP BladeSystem. The C3000 is a versatile, all-in-one BladeSystem built for small sites to deliver big business results. It allows you to consolidate server, storage, network, power, and management in an all-in-one infrastructure that is affordable and versatile:
  - Simplicity - Simple to manage, easy to control
  - Agility – Change ready IT can grow and flex with yours needs
  - Value – Reduce and up-front capital costs ongoing management technology
- ProLiant! The HP ProLiant BL2x220c G5 provides extreme density for customers where compute performance and power efficiency are at a premium.

Intel® Xeon® processors

The Intel® Xeon® processor 5400 series are built with 45nm enhanced Intel® Core™ micro architecture with up to eight cores in a two-processor configuration.

The new 45nm Enhanced Intel® Core™ micro architecture delivers more performance in the same platforms and at the same power consumption, giving customers the flexibility to match performance, power and cost requirements with your unique requirements and delivering advantages beyond just pure performance.

It supports the latest Intel® Streaming SIMD (Single Instruction Multiple Data) Extensions 4 (SSE4) delivering superior performance and energy efficiency to a broad range of 32- and 64-bit applications including 3-D imaging, gaming, high-performance applications and video encoding. Processing Intel® SSE4 is the result of continued work with the ISV community to deliver instruction set extensions that allow developers to easily enhance their products while maintaining the necessary application-level compatibility across processor generations.

The HP Intel Solution Centers provide complete telecom infrastructures for demonstrating the Communications Media and Entertainment Solution Portfolio to HP customers and partners. The centers are located in three cities: Grenoble, France; Richardson, Texas, USA; and Shanghai, China. These unrivalled technical facilities offer our customers and partners, the unique opportunity to evaluate new services in real-world environments, test new technologies and select the solutions most likely to succeed.

Technology for better business outcomes

© 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Copyright © 2008 Intel Corporation. All rights reserved. Intel, the Intel logo, Xeon and Xeon Inside are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. * Other names and brands may be claimed as the property or others.

For more information, visit http://www.hpintelco.net

HP & Intel Digital Video Transcoding Solution Blueprint, July 2008