REVISITING THE FUTURE: THE FOUR TRENDS SHAPING THE FUTURE OF AV AND IT

People have been talking for many years about the collision between the professional AV and IT industries. That collision has taken place, with AV increasingly becoming a responsibility of IT departments. Although the impact has been less like a freight train and more like a slow moving glacier, we can safely say that the long awaited integration is now clearly and inevitably underway.

Analyzing this inevitable outcome three years ago, AMX identified four trends that we thought would be key drivers to hasten the convergence of AV and IT:

1. Video everywhere
2. Ubiquitous personal & portable computing & networking
3. Virtualization (the cloud)
4. Sustainability (or Green practices).

Video everywhere - The advent of video as a communications medium has been beyond explosive. To put it in perspective, over 6 billion hours of video are watched each month on YouTube – that's almost an hour for every person on Earth - and 50% more than last year. From 2007 to 2011, the number of hours of video uploaded to YouTube increased by a factor of 6. All told, we can safely say that the explosion of video is a major driver in the new converged AV/IT world.

THE MOST WATCHED VIDEO OF ALL TIME ON YOUTUBE, "GANGNAM STYLE," HAS BEEN VIEWED ALMOST 2 BILLION TIMES

Source: YouTube, January 2014

Ubiquitous personal & portable computing & networking – There are now roughly 10 billion connected devices worldwide, which is more than two per adult on Earth. According to a June, 2013 study by the Pew Research Center, over half of Americans now own smartphones, up from 35% only two years ago. Ten years ago, the primary connected devices were laptop computers and a few cell phones. Today, web-connected devices are everywhere, and growing astronomically.

ONE IN EVERY 5 PEOPLE IN THE WORLD OWNS A SMARTPHONE. ONE IN EVERY 17 OWNS A TABLET.
Source: BI Intelligence, December 2013

Virtualization, a.k.a. The Cloud – Perhaps you can fondly recall the days when you could purchase miraculous 5 ¼" floppy discs with a whopping 1.25Mb of storage to go along with a desktop PC with 512K of RAM and a 10Mb hard drive. Since then, costs for storage have followed Moore's law into the abyss, dropping from roughly $100 per megabyte in 1985 to less than 1/1000 of a cent today. This phenomenon, combined with similarly rapid increases in available computing and network bandwidth, has led to a light-speed migration of content from local to cloud-based storage. And how fast are we talking about? According to the Gartner Group, 1/3 of all consumer digital content will be on the cloud by 2016 – from 329 exabytes currently to 4.1 zettabytes (4,100 exabytes). That's a growth factor of 12x.

GLOBAL CLOUD IP TRAFFIC WILL ACCOUNT FOR MORE THAN TWO-THIRDS OF TOTAL DATA CENTER TRAFFIC BY 2017.
Source: Cisco Systems, 2012

Sustainability, or Green Practices – It goes without saying that environmental concerns have permeated every stratum of our society. Most major corporations have well-established Green Practices; in North America, the percentage of companies with major sustainability initiatives has grown from 38% in 2011 to 64% in 2012. From automakers to appliance manufacturers to corporations who purchase AV equipment, energy efficiency is now a major decision point in their procurement process.

WAL-MART'S SUSTAINABILITY INITIATIVES REDUCED OIL CONSUMPTION BY 1,000 BARRELS AND TREE CONSUMPTION BY 3,800.
Source: Korn/Ferry International

OTHER INDUSTRIES IN COLLISION

In the 1990's, long before these four trends took off, a key predecessor to AV/IT convergence took place. That's when the telecom and data networking industries underwent a major convergence similar to what we see today with AV and IT. Like the current state of AV and IT, these two industries had drastically different roots and technical paradigms. The telecom industry was built around the notion of "five nines" service, meaning that a customer could count on completing a voice call 99.999% of the time. As such, the telecom industry's focus was more on achieving a high level of service than driving rapid growth or innovation.

In contrast, the data networking industry's roots were built on speed: Speed of innovation, speed of bandwidth, speed of *everything*. As a result, the concept of five nines was foreign to the industry, as anybody who used early dial-up and broadband services, or voice over IP, can attest.

	Telecom	**Data Networking**
Quality Drivers	Five Nines: You always get a dial tone	Best Effort: If it doesn't work, try again
Technical Paradigm	Circuit switching	Packet switching
Primary Service Offering	Voice	Anything over IP
Phase of Life Cycle	Maturity	Infancy
Target Growth Drivers	Mobility	Content
Key Results of Industry Integration	Voice over IP, Mobile Internet, Smartphones	

The key point here is that the ultimate convergence of these two industries resulted in a blending of the two: The quality of data networks has dramatically improved, innovation has skyrocketed and IP networks have proliferated everywhere - while certain telephony services like cellular have seen phenomenal growth. The result of the integration of telecom and data networking was to usher in a new era of amazing innovation and growth.

TAKE ACTION

This Industry Brief is an excerpt from the AMX White Paper "When Industries Collide: What is AV/IT Convergence – And what it means for you." You will find this White Paper and many other industry materials at www.amxcampus.com/whitepapers

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