

Design for digital

A business vision to prepare communications service providers for the cognitive era



2. Medium-term innovation trends: focus on video

New services are all about data. But in reality data is increasingly all about video. Video is now the most pervasive and growing form of traffic over fixed and mobile networks. In client projects, we often find that video traffic represents 40% of the overall volume or even more.

Video is here to stay and will continue to grow. According to the Cisco Visual Networking Index 2014-2019, video alone (made up of TV everywhere, Video-On-Demand and social/P2P video) will comprise 90% of global consumer Internet traffic by 2019. This scenario will become a reality as several industries are engaged in preparing the perfect storm. CSPs are introducing 4G (which we believe will approximately double video consumption compared to 3G) and they are preparing for 5G. The media industry is reaching maturity with HD content distribution and is now moving to Ultra-HD (UHD). Meanwhile, the consumer electronics industry is working hard to differentiate its products on larger, higher resolution screens.

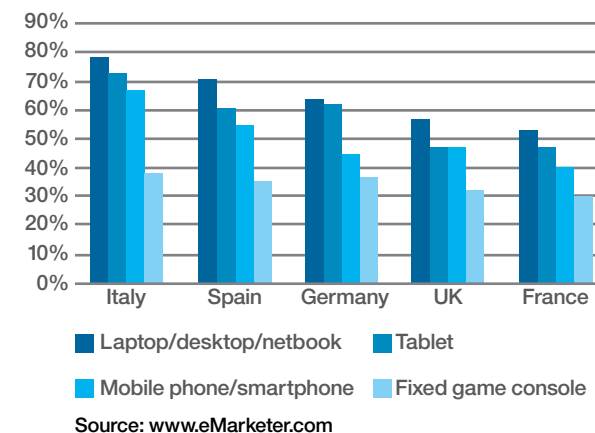
Above and beyond the sheer volume of data consumption, an essential aspect of video is customer experience. Consumers have their current expectations for services like web or email, but video is a different beast. Video comes with very specific KPIs like time to start a video, or video resolution. The quality of experience (QoE) with OTT video is becoming a key parameter for comparing CSPs. Netflix has already introduced its own (controversial) benchmarks of North American cable operators and regulators in Europe are

designing new metrics to compare CSPs beyond just coverage and bandwidth. The impact of video QoE on consumers is already apparent. In some engagements, we are already noticing a correlation in specific high-value data-hungry consumer segments between video QoE and key business metrics such as Net Promoter Score (NPS).

We are witnessing a new evolutionary phase of the Internet: it is gradually morphing into a video distribution network for both digital entertainment and social media, where the definition of consumer experience is rapidly changing from what we know today.

CSPs are adapting to this new phase and experimenting with a spectrum of business models. Some are buying rights to exclusive content (sports being a popular option with for example Telefonica and BT).

Others are aligning with OTT service providers as much as possible, by integrating the OTT app into a consistent and unified user experience (a typical example is the tight integration of Deezer music and Netflix video apps with telecom services on an IPTV set top box, or on tablets). Still others are rushing to create innovative mobile data plans where data consumption is partly paid by the consumer and partly by the OTT.



To be successful in this transformation, CSPs can rely on several enabling technologies. Analytics is critical in helping tactically to drive more revenue today and strategically to make informed decision on the optimal business model for years to come. Cloud will be essential to help lower the cost of video services delivery and to provide the required flexibility and agility.

These examples of the use of these technologies are drawn from our recent experience working with CSPs:

Using analytics to optimize products, increase quality of experience and generate new B2B revenue streams

As the market leader in analytics, IBM is making significant investments specifically focused on unlocking valuable insight from video services. With video, understanding the real consumer experience is essential. This allows network planning and investment to be driven by the reality of what consumers are experiencing and allows for the definition of innovative data plans that will be attractive in the market and generate more revenue. This innovation in data plans can come in different ways. It can involve creating data plans in partnership with OTT video service providers. It may focus on enabling different QoE with video. Informed decisions require an understanding of how people are consuming video, what and where it is being consumed, and with which devices.

In addition, analytics can help to create new business models focused on selling insight (anonymized and respecting local privacy laws) to third parties. For example we are working with CSPs to create the capability to insert video ads within a nationwide Media-Telecom ecosystem designed to increase the value of linear and non-linear TV advertising for all parties.

Cloud video delivery

Video delivery over IP initially started with proprietary technologies that had to be deployed on the operator’s network, often distributed in point-of-presence, for latency and scalability reasons. Introduction of a new generation of video streaming capabilities, such as progressive download and Adaptive Bit Rate, is changing that picture and makes cloud-based delivery possible.

As the cloud market leader, and committed to helping its clients succeed in video, IBM acquired Clearleap Inc. on December 5, 2015. Clearleap offers a cloud video platform with an API framework, subscription and monetization services, and device specific player support. The combination of IBM and Clearleap creates an industry-leading cloud based platform that can manage, monetize and grow the user video experience across the globe. Together, we address the requirements, across all industries, necessitated by embracing video, such as changes in core infrastructure, networks, management processes, and application architectures. IBM with Clearleap will offer a comprehensive cloud video solution to clients that will be secure and have access to APIs and video processing tools.

Video interactive experience

Beyond the consumer experience with video quality, there is a broader opportunity to transform how people are consuming video. Our digital agency, IBM Interactive Experience, is working with CSPs to redefine what video can make possible. KPN in the Netherlands is exploring the many new video experience options that LTE Broadcast will allow in venues like stadiums and concert halls. B2B partnerships with broadcasters to deliver premium video QoE by offloading TV everywhere traffic onto LTE Broadcast are also on the agenda. Our teams worked with KPN to define and implement such a new experience: IBM and KPN bring the stadium experience from the field to the second screen for football fans

