

Cisco Visual Networking Index: 2008 Year in Review / Video Highlights



The following facts and projections are based on the [Cisco Visual Networking Index \(VNI\)](#) and some independent analysis. Many consumer and business IP networking trends are being driven largely by video and social networking and collaboration (i.e., Web 2.0 technologies), which combined are termed “visual networking.” The Cisco VNI is an ongoing initiative to track and forecast the impact of visual networking applications.

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2008 Video Highlights

- Internet video traffic in North America and Europe in October 2008 exceeded the amount of traffic that crossed the entire global Internet in October 2001. According to comScore, Internet video minutes consumed in North America, France, Germany, and the UK surpassed 100 billion minutes per month.
- In 2008, commercial video began to drive significant Internet traffic. Although it accounted for less than one quarter of the video streams and less than half of the video minutes consumed on YouTube,¹ commercial video generated an equal amount of video traffic in the U.S.
- Hulu became the second largest source of Internet video traffic in the U.S. at over 15 petabytes per month. YouTube remained the largest U.S. video source at over 30 petabytes per month.
- The volume of monthly Internet video traffic in 2008 is nearly an exabyte higher than Internet video traffic during any month in 2007. In other words, monthly Internet video traffic in 2008 is 230 million DVDs higher than any month in 2007.

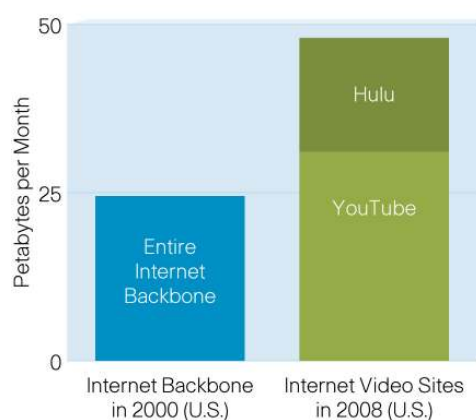
¹ Throughout this paper, “YouTube” includes both YouTube and Google Video.

- Commercial video content will drive Internet video growth (i.e., video to PCs/laptops), with traffic of this type quintupling from 2008 and 2012. Commercial video content will become 80% of all Internet video viewed on PCs/laptops by 2012.
- Traffic associated with user-generated video content will triple from 2008 to 2012.

Internet Video Traffic Continues to Grow Unabated

At the beginning of 2008, YouTube traffic in the U.S. equaled the amount of monthly traffic crossing the entire U.S. Internet backbone in 2000. As 2008 draws to a close, YouTube along with Hulu generate more than two times the amount of traffic crossing the U.S. Internet backbone in 2000.

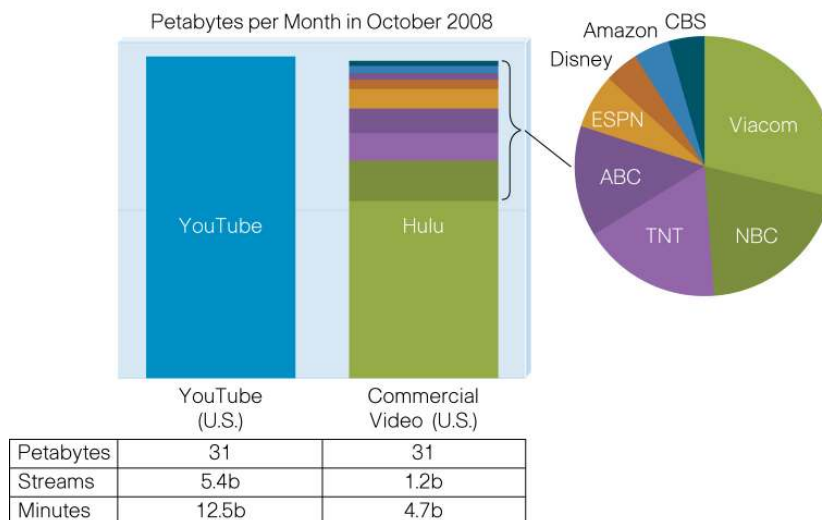
Figure 1. YouTube and Hulu Generate Twice as Much Monthly Traffic as the Entire U.S. Internet Backbone in 2000



Source: Cisco VNI, 2008

User-generated content is the hallmark of the Internet video revolution. But in 2008, commercial video made just as much of an impact, in terms of traffic. Although it accounted for less than one quarter of the video streams and less than half the minutes of YouTube, commercial video generated an equal amount of traffic.

Figure 2. Commercial Video Sites Generate as Much traffic as YouTube Despite Fewer Video Streams



Source: Cisco VNI, comScore, 2008

Hulu leapt to the number two position in Internet video traffic, generating 17 petabytes in October 2008 compared to the 31 petabytes generated by YouTube (and Google). While it took YouTube over a year to pass the 15 petabytes per month mark, it took Hulu less than 8 months to reach the same milestone. It is undoubtedly the case that YouTube primed the Internet community for video, easing the way for new video sites to rapidly attain viewership, but even when new sites do not achieve the same level of viewership, higher definition content and longer playing times lead to swift traffic growth.

The Return of the Webcam, But With a Difference

The resurgence of the webcam differs from the early webcams of the 1990s in two ways – first, they are interactive, open platforms for streaming, and second, the viewers have the bandwidth to consume “always on” video streams. Lifestreaming on sites like ustream.tv approximates what is often called “ambient” video, where the screen functions as a window into another room in the viewer’s space: it does not need to be turned on or downloaded, merely glanced at.

A case in point is the Shiba Inu Puppy Cam on ustream.tv. Between October 1, 2008 and December 1, 2008, viewers watched more than 5 million hours of the Puppy Cam, as many viewing hours as ESPN.com’s sports video content in the US during the same time period. This amounts to over 620 terabytes of traffic, or 310 terabytes per month, which is 15 times the monthly traffic volume of the entire US Internet backbone in 1994.

Figure 3. The Shiba Inu Puppy Cam on ustream.tv

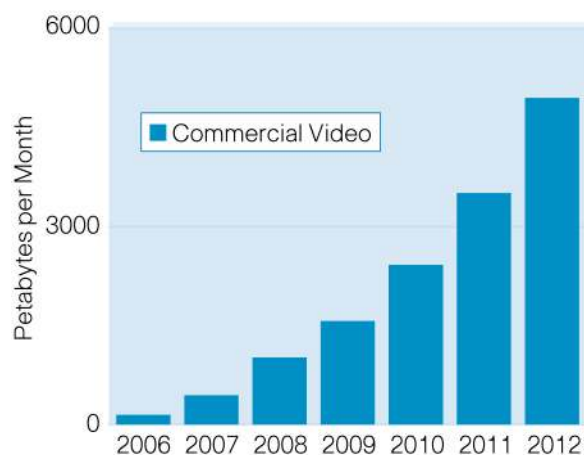


Source: ustream.tv, 2008

Outlook for 2012

The momentum behind commercial video content will continue, and commercial video traffic will quintuple from 2008 and 2012. Commercial video content will become 80% of all Internet video viewed on PCs/laptops by 2012. User-generated video will continue to grow as well, and the traffic associated with user-generated video content will triple from 2008 to 2012.

Figure 4. Internet Video Traffic from Commercial Sources Will Quintuple by 2012



Source: Cisco VNI, 2008

For More Information

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