

WHITE PAPER

Four Things to Know about Peering Connectivity

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Peering makes the Internet work. It connects the variety of networks located all over the world into a single network, the Internet. When content traverses the Internet, it randomly passes through several networks. With each pass, there is a chance the user experience will be impacted. For the most consistent and best user experience, a combination of transit, public, and private peering takes the randomness out of the Internet. Classic Web content and e-commerce applications have been well-served until now, but streaming video has forever changed the Internet, and a more predictable experience is needed.

The Internet was not originally built for streaming video. As more and more content gets published to the Web, private peering is emerging as one of the most crucial components to offer the performance, security, and user experience the viewing audience desires. Building the right high-performance network with peering connectivity to all the right places optimizes the Internet for the streaming video generation.

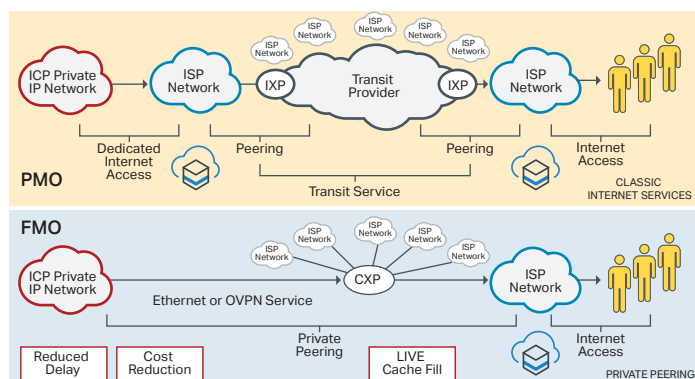


Figure 1. Components of Internet services

There is a paradigm shift in consumer behavior. Consumers have moved from static to mobile, and want to access the broadest

array of content fast, anytime, anywhere. Additionally, they want to be able to view that content from any device (smart phones, TVs, tablets, PCs) with perfect quality. A further move is from data connectivity to video and live streaming of events. This paper examines how private peering (or direct connect) solves the following challenges, enabling content delivery with great quality of experience for the user:

- Long startup times
- Buffering and freezing
- Audio garbling
- Artifacts and pixilation

Internet Content Providers (ICPs), along with providers of Over-The-Top (OTT) video and streaming services such as Netflix, Amazon, and Hulu, are keeping pace with the latest 'new normal'—consumer expectations for anywhere, anytime access to quality, engaging video entertainment. These companies never want customers to leave their service to get content somewhere else. Abandonment is the enemy of revenue.

Many OTT companies are making big investments in premier content and creating high-quality video content designed to entice, engage, and gratify target audiences. After all the hard work of creating differentiated content is done, it is critical to ensure the network that delivers the video (built or service-bought) has the right capacity and quality connections. Compression distortion of the creative investment as it traverses an all-digital network to get to the user is unacceptable.

Peering—and, more commonly, private peering with optical or Ethernet connectivity—is enabling content providers to deliver video more directly to consumers, bypassing congested Internet transit routes. Driven largely by OTT video-streaming