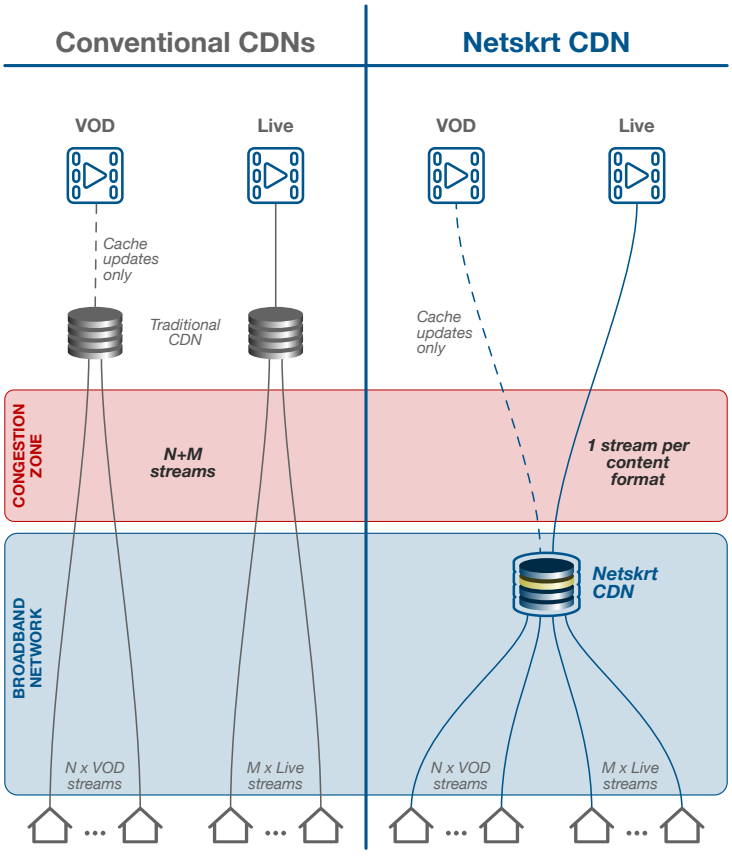
USE CASE BRIEF

The Netskrt CDN: Helping ISPs improve streaming video efficiency and quality

The growth in streaming on-demand video has produced a well-documented explosion in the volume of traffic traversing broadband networks. But a new trend that is only in its infancy and portends massive additional traffic increases on these already overburdened networks is the streaming of live content, particularly sporting events. None of the network components in the streaming video value chain were built to accommodate massive, simultaneous, and synchronized distribution live video content. This includes not only the broadband networks themselves, but the content delivery networks (CDNs) and fiber backbones upstream from them. An evolution in these networks is required and it starts with the CDNs.

CDNs have long been the primary platform used by content owners to distribute their offerings. This is true even in dense urban settings with large amounts of fiber—it is always better to distribute content as close to the edge as is technically and economically feasible. The problem for many ISPs is twofold: (a) CDN technology does not scale down to environments with relatively low user counts, often anything under 50-100K subscribers, and (b) as a consequence, the reach of CDNs means they can't provide network or streaming efficiencies to downstream viewers of live content, impacting everyone from tier one ISPs to rural providers.



Introducing the Netskrt CDN

Netskrt Systems has developed a unique and innovative body of technology that overcomes these fundamental CDN limitations. Representing a radical disruption in CDN thinking, the Netskrt CDN is able to cost effectively reach deep into the broadband edge networks and fully address the demands of large scale on-demand and live streaming video use cases. And Netskrt does this in a manner that is fully compatible with all parts of the streaming video ecosystem: content owners, existing CDNs, internet service providers (ISPs), and consumer playback devices.

The Netskrt CDN is especially well suited for ISPs with footprints extending into rural and exurban areas, delivering the following benefits.

01 • Reduction in backhaul bandwidth. By placing caches directly inside the ISP's network, streaming occurs between the local cache and the user's player (smart TV, tablet, smartphone, etc.), i.e., streaming traffic on the backhaul portion of the network is dramatically reduced, if not eliminated.

02 • Non-buffering, synchronized, HD/UHD delivery of live streaming services. The Netskrt CDN uniquely replicates live content, allowing an arbitrarily large number of downstream subscribers, potentially hundreds of thousands, while addressing variable backhaul and related buffering and synchronization issues across all subscriber. By itself, content replication can deliver backhaul bandwidth savings greater than 95 percent.

03 • Higher customer satisfaction. It is an unfortunate fact that broadband ISPs bear the brunt of consumer ire when it comes to streaming video, even though in almost all cases the fault lies elsewhere, typically upstream with traditional CDNs or with the streaming services themselves. The Netskrt CDN allows rural ISPs to deliver a flawless streaming video experience to their customers.