The CDN platform for service providers

Virtuozzo CDN is a turnkey content delivery platform for pure-play CDN companies, hosts, telcos, carriers and other service providers.

It enables you to build your own CDN and sell content delivery services for your customers' websites, files and streams - either using your own datacenters, or wholesale infrastructure from the CDN marketplace that's built into the CDN platform.

Build your own CDN

The Virtuozzo CDN platform combines a full CDN software stack with a wholesale CDN infrastructure marketplace that you can tap into on demand.

You can build public and private CDNs inside your own infrastructure, and add instant coverage - without CAPEX - at any mix of the 170+ locations on marketplace, spanning 113 cities in 43 countries.

- For CDN providers, it offers instant network coverage at any mix of the marketplace locations available, for static and streaming content.

- For cloud and hosting providers, the platform extends your reach into new geographies, provides better performance for the web workloads you host, and enables you to create new content delivery revenue streams – either as an add-on to your hosting service or reseller package, or as a standalone product line.

- For telcos, carriers and other network owners, building your own CDN helps you control the traffic flowing across your core network, mitigate network costs (especially from OTT traffic) and evolve from being 'just' the network owner to become a CDN partner for content providers and wholesale customers, in your own right.

- You can also build CDN services without any infrastructure of your own: as a virtual CDN service provider you can create bespoke services for different markets by sourcing the capacity you need from the marketplace.
Federated CDN puts you in control

More reach, more speed and more revenue

The marketplace infrastructure is provided by a federation of service providers around the world. This federated CDN model gives you extremely granular coverage, including many locations not served by other CDNs, and a rich range of price and performance options to choose from.

**CDN for telcos and carriers**

Building your own CDN has many benefits: you can control traffic, protect your network investment and create new revenue streams from wholesale, OTT and retail CDN services.

Our CDN software stack enables you to deploy edge, storage and streaming servers in your datacenters to create your own self-operated CDN, and with the addition of public and private resources from the marketplace provides many ways to create new wholesale revenue streams.

**CDN for hosting providers**

You can deploy Virtuozzo CDN as an integrated part of your cloud, or with a third party cloud management platform.

You get everything you need to create CDN Points of Presence in your own datacenters and provision and manage your service. And you can add as much global capacity as you need using locations on the marketplace.

**CDN for virtual service providers**

Using the CDN marketplace you can build your own CDN service without owning any of your own infrastructure.

With a single control panel (deployed locally, or hosted) you can combine marketplace locations into a virtual CDN to meet specific market needs – for example, focused regional coverage, or high performance – and take it to market with zero CAPEX on infrastructure.

**CDN for infrastructure providers**

You don't have to sell CDN services to benefit from our CDN platform. You can contribute infrastructure too, and we're always on the lookout for high quality PoPs to add to the marketplace.

You simply deploy edge servers for http or streaming content, set your wholesale price and publish them to the marketplace. You get paid whenever other marketplace users members consume your capacity.
CDN features and supported protocols

The Virtuozzo CDN platform enables you to offer a wide range of content delivery services a wide range of static and streaming content types.

**Supported protocols & content types**

**HTTP Push** – content is distributed proactively to edge servers in your chosen CDN locations. Push is normally recommended where file sizes regularly exceed 50MB, such as installers or game patches.

**HTTP Pull** – when content is requested by an end user, it's pulled from the origin server to edge servers closest to the user. The platform supports multiple pull locations. Pull is often used for smaller files, such as website images, javascript, css and html.

**Live streaming** – Live streaming capabilities are enabled by Wowza Media Server 3, the leading high-performance media server.

- Adobe – RTMP / RTMPE / RTMPT
- Android – RTSP/RTP
- Flash – HTTP Dynamic Streaming (HDS)
- Apple – HTTP Streaming (HLS) for iPhone, iPod, iTouch
- Microsoft – Smooth Streaming for SilverLight

**Video on Demand** – deliver video with YouTube-style features like fast forward and rewind:

- HTTP Pseudo Streaming support includes FLV (Flash Video – .flv) and MP4 (QuickTime container – .mp4, .f4v, .mov, .m4v, .mp4a, .3gp, and .3g2)
- H.264/AAC content in MP4 container files can be delivered to any supported player
- Playback is up to 1080p
- Uses Nginx to serve videos through normal http

**Video on Demand is available for:**

- Adobe® Flash®
- Apple® iOS: iPhone®, iPad®, and iPod® touch
- Microsoft® Silverlight®
- Apple QuickTimeTM
- AndroidTM, Blackberry® & other 3GPP platforms

**Security & content control**

The Virtuozzo CDN platform protects your customers’ content, and helps them to implement their own content delivery policies. It includes:

- Link encryption for Flash (RTMPS, RTMPE, RTMPT) – protect against content intrusion, unauthorized diversion and stream ripping
- Secure Token – protect against spoofing threats such as those posed by streaming media interceptors
- Geoblocking – restrict the availability of content to end users in specific locations on an include or exclude basis
- Secure Delivery (SSL) – supports vanity and shared SSL certificates to protect content delivery, from the origin to the CDN, and the CDN to the end user
- Anti-leech protection for streams
- Hotlink prevention for content resources
- Flexible content routing rules

**Reseller functionality**

You can easily set up unique reseller control panels with tailored access to your own PoPs and marketplace PoPs, and their own user rights and pricing.

**Monitoring & reporting**

All marketplace edge servers are monitored 24x7 from four widely distributed locations. CDN bandwidth is monitored in real time too. The platform provides a range of reporting tools for CDN providers and their customers within the control panel.
Software & service components

Controller Server
The Controller Server hosts your CDN control panel and gives you, your customers and resellers an easy way to manage CDN services, from setting up edge servers and zones, to configuring CDN resources and security policies. The control panel is fully rebrandable, supports localization and has a full API.

Edge Servers
The platform includes an advanced edge server appliance that caches and distributes content. The edge server can be deployed on dedicated servers or cloud infrastructure.

Storage Servers
The platform lets you add dedicated storage servers to your CDN set-up. These remove the workload from origin servers and help to reduce latency and throughput bottlenecks, by pushing content stored across multiple locations.

Anycast DNS
The platform includes an intelligent Anycast DNS routing engine. Hosted at datacenters around the world, it automatically directs content requests to the nearest CDN location, using DNS routing to reduce the number of network hops required, which is much faster than traditional DNS configurations. The platform also integrates with Google DNS and Open DNS.

CDN marketplace
The platform includes a wholesale marketplace where service providers can choose capacity from the locations with the price, location, performance and SLA they need, and sell capacity back to the marketplace too.

Hardware requirements (for on-premises deployments)

Controller Server
- Dual or Quad Core 2Ghz+
- 8GB+ RAM
- 100GB RAID 1
- 2 x Gbit NIC

Storage Servers
- Quad core 2GHz+
- 8GB+ RAM
- Disk: 1000GB (RAID 1/5/6/10 recommended)
- 1 x dedicated Gbit NIC

Edge Servers
- Quad core 2GHz+
- 4-8GB+ RAM
- 100GB – 1TB RAID-0 disk
- 1 x dedicated Gbit NIC
- Throughput: 100Mbps – 1Gbps

Marketplace Edge Servers
To maintain quality of service in the marketplace there are a few additional requirements to meet. Please contact us for more information.