

### 1. What is Subspace?

Subspace is a parallel internet, built alongside the traditional public internet, designed and optimized for real-time performance. It is secure, and dedicated to accelerating real-time applications by delivering lower latency, less jitter, and better overall customer experiences.

We currently serve more than 400M users and some of the largest companies in the world. Learn more about Subspace by visiting <a href="https://www.subspace.com">https://www.subspace.com</a>.

### What is WebRTC-CDN?

WebRTC-CDN (previously known as "GlobalTURN") is a WebRTC delivery network. Backwards compatible with the TURN protocol, WebRTC-CDN handles traditional TURN NAT traversal functions as well as guaranteeing network performance for all WebRTC traffic with Subspace's dedicated global fiber-optic network, which is ranked the #10 most interconnected network on the internet.

WebRTC-CDN also brings to the WebRTC market the first always-on DDoS protection, and acts as an onramp to Subspace—a dedicated, secure internet for accelerating real-time applications.

Learn more about WebRTC-CDN by visiting <a href="https://subspace.com/product/webrtc-cdn">https://subspace.com/product/webrtc-cdn</a>.

### 3. What are the benefits of using WebRTC-CDN?

The internet wasn't built for speed and performance. Because of this, real-time applications are negatively impacted. So, we've built an internet made for how the world works now.

WebRTC-CDN provides an onramp to Subspace—a private internet created for accelerating real-time traffic, including any WebRTC-based application. WebRTC-CDN enables application developers to utilize "always-on" TURN on a performant internet that eliminates hairpinning and latency costs for all WebRTC-based traffic.



WebRTC-CDN enables the privacy benefits and reliability of using TURN on a global-scale, without having to manage deployments or any other TURN services. WebRTC-CDN provides ephemeral credentials via the Subspace API; it does not require hardware or installation.

Learn more by visiting <a href="https://subspace.com/product/webrtc-cdn">https://subspace.com/product/webrtc-cdn</a>.

### 4. How can I get access to WebRTC-CDN?

Simply visit console.subspace.com/try and create a free account.

Additional plans are available after signup. If you'd like to learn more about them, then please visit <a href="https://subspace.com/pricing/webrtc-cdn">https://subspace.com/pricing/webrtc-cdn</a>.

### 5. Do you have an API?

Yes. Subspace WebRTC-CDN provides a REST API for customers to obtain ephemeral TURN credentials for use by WebRTC clients. The API returns TURN credentials in a JSON format that can be consumed directly by browser <u>WebRTC APIs</u>.

All relevant API documentation is available at <a href="https://subspace.com/api">https://subspace.com/api</a>.

# 6. Do you support the 'long-term credential mechanism?'

Yes. Both WebRTC and WebRTC-CDN use the long term credential mechanism to authenticate TURN allocation requests.

Additionally, Subspace provides ephemeral credentials that expire within minutes. A new set of credentials must be obtained after expiry. Expiration does not affect existing TURN allocations, only new allocations require valid credentials. In the event of an ICE restart, valid/non-expired credentials will be required. This provides added protection when sharing credentials with client applications. Each request to the TURN credentials API will result in a new set of dynamically generated credentials.

### 7. What do I need to do to integrate WebRTC-CDN?

WebRTC-CDN requires an active subscription, access to the Subspace API, and a configuration change within your current TURN deployment. Those steps are as follows:

- 1. Create an account on the <u>Subspace console</u>.
- 2. Integrate with the GlobalTURN/WebRTC-CDN API.



- 3. Set up signalling server(s) to call the Subspace API and pass credentials to client browsers via the RTCPeerConnection interface. Replace values for existing TURN service with Subspace-provided credentials/URI.
- 4. Set "iceTransportPolicy" to "relay".

## 8. How does WebRTC-CDN impact the ICE negotiation?

Utilizing WebRTC-CDN simplifies the ICE negotiation, as your client only needs to find/test one combination: WebRTC-CDN.

## 9. Does WebRTC-CDN support ice-lite?

Yes. You can find me information <u>here</u>.

# 10. What version of TLS and Cipher Suite does WebRTC-CDN support?

Per RFC 5766 and RFC 6062, TLS (per RFC 5766 and RFC 6062): TLS1.0/TLS1.1/TLS1.2; ECDHE is supported.

### 11. Does Subspace leverage anycast?

Subspace has improved anycast's resiliency. Under normal anycast, if a server fails, and the route to it is withdrawn from BGP, then BGP will reconverge to the next-geographically closest server. This next server lacks any context about the pre-existing connection, causing a reset and requiring the client to establish a new connection.

In the rare event of a Subspace PoP failure, all Subspace PoPs share network state information with one another, so a PoP failure cannot stop even a pre-existing connection. Instead, the moment a PoP fails and its BGP announcements are withdrawn, BGP reconverges to send traffic to the next-geographically closest PoP as expected.

That PoP, since it already knows the appropriate IP and port and forwarding information, accepts the next packet in the stream, and forwards it on appropriately. So it is as though there was only a brief pause in the connection stream.



### 12. What kind of traffic can I accelerate?

Subspace and WebRTC-CDN were created to ensure that the internet actually works for real-time apps in a predictable, dependable, stable, and secure manner. Therefore, you can accelerate any real-time application traffic that follows our terms of use (<a href="https://subspace.com/terms-of-use">https://subspace.com/terms-of-use</a>) and leverages both WebRTC and TURN.

To learn more about use cases and how we address industry or business-specific traffic, visit <a href="https://www.subspace.com">https://www.subspace.com</a> and check the "Solutions" area in the navigation bar.

### 13. Is WebRTC-CDN free to use?

Yes. Developers can begin using WebRTC-CDN by signing up for the "Standard" plan at <a href="https://console.subspace.com/try">https://console.subspace.com/try</a>.

Learn more about the "Standard" plan, including additional plans and features, by visiting <a href="https://subspace.com/pricing/webrtc-cdn">https://subspace.com/pricing/webrtc-cdn</a>.

# 14. How many concurrent sessions does WebRTC-CDN enable?

The amount of concurrent sessions included in your plan varies.

Learn more about plans and features by visiting <a href="https://subspace.com/pricing/webrtc-cdn">https://subspace.com/pricing/webrtc-cdn</a>.

#### 15. Is there a limit on data transfer?

The amount of data transfer enabled in your account is determined by your plan. The "Standard" plan includes 10GB/mo of data transfer with the ability to use more at a rate of \$0.29/GB.

Learn more about plan limits by visiting <a href="https://subspace.com/pricing/webrtc-cdn">https://subspace.com/pricing/webrtc-cdn</a>.

## 16. How can I enable the "Service Provider" plan?

Please contact us by visiting <a href="https://subspace.com/contact">https://subspace.com/contact</a> to inquire about enabling the plan.



# 17. Where can I learn more about Subspace and/or WebRTC-CDN?

Here are some useful links:

- <a href="https://www.subspace.com">https://www.subspace.com</a>
- <a href="https://subspace.com/resources">https://subspace.com/resources</a>
- https://subspace.com/api
- <a href="https://subspace.com/product/webrtc-cdn">https://subspace.com/product/webrtc-cdn</a>
- <a href="https://subspace.com/pricing/webrtc-cdn">https://subspace.com/pricing/webrtc-cdn</a>

## 18. I have more questions. Who can I contact?

Please visit <a href="https://subspace.com/contact">https://subspace.com/contact</a>, email us (<a href="mailto:subspace.com">subspace.com</a>), or follow Subspace on Twitter <a href="https://twitter.com/subspacepowered">https://twitter.com/subspacepowered</a> to stay up-to-date on any WebRTC-CDN news.

