

geocomply.com

GeoComply is a Vancouver-based cybersecurity and fraud prevention company that specializes in geolocation technology. Initially, the company's patented and proprietary solutions were developed for the highly regulated U.S. online gaming and sports betting market to ensure compliance with jurisdictional laws. GeoComply has since expanded its services to other sectors, including financial services, cryptocurrency, and media and entertainment, with the goal of creating a safer internet by instilling confidence in online interactions and protecting businesses from fraud and non-compliance penalties. GeoComply's expertise in geolocation goes beyond simple IP address checks, which can be easily manipulated. Its technology combines multiple data sources, including Wi-Fi, GPS, cellular data, and IP addresses, to pinpoint a user's true location with high accuracy. The company also employs advanced anti-fraud techniques to detect and combat location spoofing methods including VPNs, proxies, and advanced techniques such as fake GPS apps, emulators, and device tampering.

Fourteen years ago the founders of GeoComply observed that as more and more services moved from physical to digital, the requirement to be able to accurately geolocate users on the internet was going to become increasingly important. However, they also realized that the standard for web geolocation depended upon comparing somebody's IP address with a register to try and determine where the user was located. These registers were continuously changing; making accurate geolocation a challenge. Furthermore, the use of IP anonymising tools such as proxies and VPNs meant that even if you could geolocate a user, you could not be certain whether you were geolocating the right user.

In this unreliable world of IP geolocation, how do you digitize an industry like sports betting, when the legality of gambling varies based on what state you are in? The solution was to take the most reliable digital signals and advanced analytics process to build compliance-grade geolocation solutions. The result of years of cutting-edge geolocation innovation is GeoComply's flagship product, GeoComply Core - a tool that is used to geolocate 95% of all legal sports bets placed online in North America, and has been deployed in industries as varied as financial services and social media.

While there are many industries that depend upon location to govern how their services are delivered and priced, the media and entertainment industry leans on location more than most. Whether it's the price of a subscription to a streaming service, the value of a sports rights package in its home country/city, or the relevance of an advert, location underpins the revenue models of the media and entertainment industry. IP-based geolocation has been a reasonably effective tool for streaming platforms to control these revenue models for the past 10-15 years, but changes in user behaviour and technology are paving a path to a world where 'beyond-IP' geolocation techniques are required in order to continue upholding these established business models.

More accurate location insights can provide enhanced value across the media and entertainment industry by improving:

- Regional news delivery - ensuring the correct feed is delivered to the right part of the country
- Regional sports - to uphold licensing deals, for local sports teams, as with the RSN models.
- The accuracy of target ads
- CDN routing
- Identifying account sharing and piracy

The challenge IP geolocation presents today is caused predominantly by a few key factors:

- IP range assignment changing often
- Granularity of IP geolocation at anything beyond country level is 70% accurate at best, quickly declining to 50% at city level and beyond

- Prevalence of VPN use and the increased use of residential proxies.

GeoComply technology leverages location signals from a device, including GPS, WiFi and cellular to pinpoint a device. Hundreds of checks are then carried out to determine whether the device has been manipulated in any way, from the presence of a fake GPS app to manipulation of lat/long coordinates in a browser. The result is a geolocation signal that accurately denotes where a user is, and a trust score to allow the platform operator to know whether to deliver a piece of content to the given device or not. Having launched GeoComply Core for streaming in 2024, so far 3 major streaming platforms are using it to deliver regional content to their users in a way not possible when leveraging just an IP address alone.

In the many years GeoComply has worked in online geolocation and fraud detection we have built a lot of knowledge about the techniques used to circumvent restrictions, and how to create better user experiences based upon knowing where users are. GeoComply would be pleased to collaborate with the IETF to work towards improving IP geo and setting out the benefits of what beyond-IP based geolocation can bring to the Internet's users.