matchbook

Matchbook Spatial Indices: The Next Frontier in Precision Location-based Targeting

Data Sheet

Location-based targeting data has always been useful for advertisers to leverage for their campaigns. After all, why target consumers in temperate locations with ads for snow tires? The challenge is that location data isn't always as granular as it needs to be. For instance, marketers can target by ZIP code, but a single ZIP code can cover a wide area, which means it can include a wide range of demographic segments. Thanks to Spatial Indices, marketers can overcome this challenge with precision location-based targeting.

How do we enable marketers to reach their exact audience in a privacy compliant manner? Enter Matchbook Spatial Indices. The newest component of Matchbook, an dentity resolution tool for brands, agencies and ad tech companies that need to reconcile fragmented first-party data to expand reach to additional advertising channels, such as CTV/OTT.

Spatial Indices allow marketers to reach their ideal audience via precise geolocation data across multiple channels.

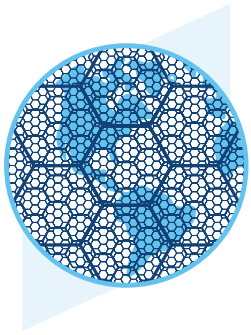
Spatial Indices 101

Spatial Indices allow marketers to reach their ideal audience via precise geolocation data across multiple channels. What is a spatial index specifically? It's a way to organize geographic data so that it can be searched more efficiently. It works like a map, where each index has a specific character string value assigned, the geolocation data is then located within its unique index.

This is a useful approach when looking for specific places within a certain area, such as a pocket of a demographic type within a ZIP code. The index makes the search faster and more accurate, which is important for many different types of mapping and location-based targeting.

Types of Spatial Indices offered in Matchbook

Matchbook offers three types of Spatial Indices: H3, Geohash, and ZIP codes.

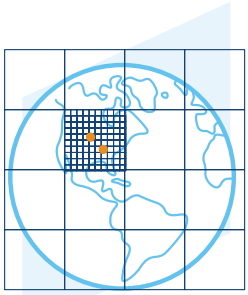


H3

H3 spatial indexing is a way of dividing the earth's surface into a grid of hexagons of varying sizes.

The H3 index provides a hierarchical system of hexagons at different resolutions, ranging from very large hexagons that cover the entire planet to very small ones.

This index is useful for storing and retrieving geospatial data, as it allows for efficient spatial queries and operations.



Geohash

Geohash spatial index is a way of dividing the earth's surface into a grid of rectangular cells of varying sizes.

The Geohash algorithm uses a base-32 numbering system to encode the latitude and longitude coordinates of a location into a shorter string of characters.

This index also provides a hierarchical system of cells at different resolutions, ranging from very large cells that cover the entire planet to very small ones.

ZIP Codes

ZIP codes are a spatial index in that they are numerical codes used by the United States Postal Service to identify specific geographic areas within the U.S. for efficient mail delivery.

Matchbook's IP Address Geolocation Leadership

Spatial Indices are useful thanks in large part to Matchbook's leadership in understanding IP address geolocation data. Our datasets allow us to tell a great deal about the IP address associated with a device, including the number of times it has been seen within a H3 hexagon or Geohash rectangle. For instance, if Matchbook sees a mobile ad ID (MAID) within a H3 cell, we can conclude that the device is associated with that specific H3 cell.

The ability to associate IP addresses with specific geolocations is essential for enhanced targeting.

How Advertisers Can Leverage Matchbook's Spatial Indices

Advertisers can leverage Matchbook's H3 and Geohash Spatial Indices to refine their ad targeting strategy to better home in on your ideal audience.

Here's how:

Step 1:

Begin by identifying the areas of locations of interest (e.g. ZIP codes, cities, regions).

Step 2:

Deploy a spatial index to divide the targeted areas into smaller areas. This allows marketers to distinguish different pockets of demographics that can exist within a single ZIP code, city or region.

Step 3:

Overlay demographic data to each cell (hexagon in the case of H3 or rectangle for Geohash). Demographic data is vetted by public sources, such as the U.S. Census Bureau, and includes attributes such as age distribution, and levels of education.

This process will allow advertisers to target ads to users within each cell or subset most likely to meet campaign criteria, or those that are likely to be located within them based on their previous device location history. Additionally, Matchbook's Spatial Indices enable greater efficiency in campaign management with the ability to analyze location data in a structured and scalable way.

Identity Resolution and Ad Targeting

Matchbook's database ties IP addresses to latitude and longitude, and now with its Spatial Indices databases, to H3, Geohash and ZIP code cells. Thanks to this integration, marketers can enter H3 or Geohash values of interest into the Matchbook database, and it will return a list of the most frequent IP addresses or MAIDs observed in those cells. Put another way, the Matchbook database lets marketers run multi-channel campaigns in specific geolocations of interest.

matchbook

Our Difference

Matchbook leverages an unparalleled understanding of the IP address space, including how they are allocated, their level of stability, and how location and ISP data affect specific attributes. By design, all of Matchbooks IP Intelligence datasets are comprised of privacy-sensitive, first-party, geo-location data that makes it easy for marketers to enhance their campaigns. Customers can then target the right audience with the right message at the right time.