

digital element 
Location is Elemental™

IP Intelligence and the Internet Broadcast Revolution



New Viewing Habits Driven by Multi-Device Consumers

The rise of the internet has revolutionized the broadcast industry. The days of a fixed program schedule delivered through a small number of terrestrial TV stations are long gone. Instead viewers have access to over-the-top (OTT) and video-on-demand services (VOD) and have become their own program schedulers, with a vast array of content at their fingertips. Consumers can now view content when they want. The appetite for OTT is set to continue to grow worldwide. VOD revenue in Latin America is predicted to reach \$3.59 billion by 2021, more than triple the \$1.15 billion in 2015.

For viewers, the convenience of choosing what to watch, when they want is very compelling. However, so is the proliferation of premium content available through increasingly popular OTT services such as Amazon Prime's Subscription VOD (SVOD) that provides content not available elsewhere for a competitively low cost.

This programming revolution has gone hand in hand with the explosion of devices that are capable of streaming high-quality video. Better quality mobile screens, the proliferation of low-cost data plans, and the increasing number of Wi-Fi hotspots are all fueling this growth. People are no longer viewing through a single TV in their households. They can access content through a variety of tablets and smartphones wherever they want.

This new video landscape presents some interesting challenges for broadcasters. As people are watching more content on multiple devices while on the move, broadcasters have to be mindful of compliance with licensing, copyright agreements and cultural differences. Broadcasters need the ability to grant access where viewing is permissible and restrict access where it is not, all while making the end user experience as seamless as possible.

There is a solution.

Digital Element's premium IP-based solution, NetAcuity®, at its most granular level can accurately locate a user down to the city/postal code sector level and identify Wi-Fi connection locations without becoming personally identifiable. This enables broadcasters to confidently restrict or permit access to content.



VOD revenue in Latin America is predicted to reach **\$3.59 billion by 2021**

IP intelligence simplifies geographic rights management.



Accurately identify user location and grant or restrict access.



Respond quickly to changing rules for content distribution.



Identify those deliberately trying to mask their location.



Localize content and advertising, offer alternatives to blocked content.



IP Intelligence Simplifies Geographic Rights Management

Ensure Compliance

Accurately identify user location and grant or restrict access.

Flexible Distribution Management

Respond quickly to changing rules for content distribution.

Advanced Proxy Detection

Identify those deliberately trying to mask their location.

Optimize the Customer Experience

Localize content and advertising, offer alternatives to blocked content.

Linear TV Gives Way to Smarter Devices and New Programming

This viewing revolution is mostly being led by a younger, more tech-savvy generation who has grown up in a world where access to the internet is commonplace. In general, Latin American habits follow Brazilian ones: The average time spent with VOD in a week is 13.2 hours. The ratio of regular TV versus VOD is also higher on the streaming side. Eighty-one percent of Latin Americans say they watch VOD and 70 percent state they watch regular TV. Smartphones are the preferred devices for videos too.

And it looks likely that this shift from linear to on-demand television is only going to continue to grow, meaning that broadcasters must consider how they will compete in an increasingly saturated market.

It's not just the small screen that high-speed internet connection penetration will help fuel this growth, but differences do exist throughout the region. For example, Mexican high-speed Internet Service Providers (ISPs) are providing low penetration numbers to broadcasters. In turn, broadcasters are reluctant (in Mexico) to launch or participate in an OTT offering. Brazil and Argentina, on the other hand, are much more advanced in this area. The increase of SVOD and Transactional VOD (TVOD) services are also changing the way people want to interact with advertising, with many subscribers of such services preferring to pay extra to remove commercials. Consumers adopt different tactics to avoid watching ads, such as browsing the internet on other devices and recording to skip ads. Marketers need to get smarter in terms of delivering ads, making them more contextually relevant and personalized.

The Value of IP Intelligence

In a market where legislation and rights can rapidly change, the serving of content to the right user is far from simple. And, the consequences for not protecting assets can adversely affect revenues, produce cost penalties for non-compliance, and damage a brand's reputation for blocking access when it should be allowed.



Proxy Data Refreshed Daily

The only provider to do this

99.99% ACCURACY

at the country level and up to

97% at the city level.

IP data is vital for content providers to comply with digital rights licenses, either at a country or regional level. Yet, many are using poor approaches that restrict users who should be able to view content, while allowing access to those who should not. The deployment of accurate IP Intelligence and geolocation technology negates this issue because it accurately identifies the user's location. Working with less accurate data providers can create false restrictions, leading to disgruntled consumers.

Additionally, accurate IP-derived connection speed data helps ensure streaming content is optimized for the viewing platform and aids in eliminating the technical problems associated with delivering video or music over a range of devices and connectivity types.

There are many unscrupulous users who try to access content they should not be viewing by masking their location, using proxies or Virtual Private Networks (VPNs). Broadcasters need to utilize premium IP solutions to ensure they are not falling foul of nefarious methods of internet access.

Digital Element's proxy database is the most advanced in the world. It can identify the type of proxy—such as anonymous—or if the traffic is coming from a hosting center. In addition, it can ascertain from where the proxy emanates, such as a Tor exit, Tor relay, the cloud or through a VPN. This data is refreshed daily to ensure it is sound. This breadth and depth of this level of proxy information provides the ability to identify more suspicious connections and minimize false positives, enabling the broadcaster to make more informed decisions about allowing or denying access to content.

With revenue and reputations at stake, it pays to work with the world's most accurate and granular IP data. NetAcuity ensures compliance and accurate identification of a user's location. It can also be used to help geotarget advertising making messages more contextually relevant and engaging.



Not All IP Vendors Are Created Equal



Granular Proxy Data Refreshed Daily

Proxy Type	
• Anonymous	Actual IP address of the end users is not available which often includes the use of services that change location to circumvent digital rights management, TOR points (free software for enabling anonymous communications), temporary proxies and other masking services.
• Transparent	Actual IP address of the end user is available via HTTP headers, although the value is not necessarily reliable (i.e. it can be spoofed).
• Hosting	Addresses belong to a hosting facility, and end users are not typically located in a hosting facility.
• Corporate	Generally considered harmless, but their location can occasionally be a concern. Multiple users proxied through a central location or locations, and thus sharing a single network-apparent IP address, are not reliable.
• Public	Multiple users are proxied from a location allowing public internet access (i.e. libraries).
• Edu	End users come from an educational institution with the .edu extension.
• AOL	AOL proxy
• Blackberry	All Blackberry users go through a centralized proxy location and thus cannot be accurately geotargeted.
• “?”	A return that indicates there is no evidence to support proxy activity for a given IP address (used to initially parse proxy vs. non-proxy online traffic).
Proxy Identification	
• Tor Exit	The gateway nodes where encrypted/anonymous Tor traffic hits the internet.
• Tor Relay	Where the Tor network receives traffic and passes it along. Also referred to as a “router.”
• Cloud	Enables ubiquitous network access to a shared pool of configurable computing resources.
• VPN	The virtual private network encrypts and routes all traffic through the VPN server, including programs and applications.

Not All IP Vendors Are Created Equal

There are several suppliers and systems available that can determine where an IP is and, for a small investment, an answer can be provided. But is it the right one? Determining the correct location of an IP address and discovering other useful IP intelligence data such as connection speed and anonymizers requires advanced infrastructure analysis, as opposed to simply scraping internet registries or repackaging publicly available free data.



“Any company distributing video content from studios, networks or independent producers has to comply. While the studios do offer a list of approved IP geolocation technology providers, the list is small and many of the companies tend to operate only in very specific regions of the world. The risks are significant without this type of digital protection.”

Allan Dembry - CIO, head of global engineering for VUBIQUITY

NetAcuity Global Client Base

 iStreamPlanet®

 CNN.com

 Televisa

 globo.com



 SONY

 VUBIQUITY

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Digital Element’s premium IP solution, NetAcuity, at its most granular level, can accurately locate a user down to the city/postal code sector level and identify Wi-Fi connection locations without becoming personally identifiable. It is also the only IP solution in the world that has been accredited by the Media Rating Council.

The coverage is global, accuracy is 99.99 percent at a country level, up to 97 percent at a city level and the data is refreshed weekly. It can also determine how a user connects, enabling the identification of data that broadcasters need to effectively manage digital rights.

This is achieved by combining IP routing infrastructure analysis with anonymous location insight gleaned from a network of global commercial partners.

NetAcuity is an effective one-source solution that is simple to integrate into broadcasters’ systems and manage in-house. Conversely, publically available data has patchy global coverage; is rarely updated; is limited in terms of data parameters identified; and is inherently inaccurate.

Digital Element – The Global IP Geolocation Leader

NetAcuity provides IP geolocation solutions for a global client base, including leading media owners, such as the Hulu, CNN, Televisa, VUBIQUITY, Globo, Sony Pictures, Disney Interactive and more.

The solution is bundled in three ways to meet the unique needs of our clients and each option varies in terms of data accuracy, granularity, technical integration and service level.

NetAcuity Pulse™ adds a whole new dimension to IP geotargeting. It builds on the NetAcuity Edge™ solution by incorporating data from mobile devices, billions of real-time data signals and Wi-Fi connection points. NetAcuity Pulse expands the global coverage and reach for postcode level targeting within cities and neighborhoods, offering more seen IPs at a hyperlocal level than any other supplier. This solution also enhances the targeting of mobile and connected traffic, providing unrivalled IP targeting precision.



Standard NetAcuity

NetAcuity is the traditional industry standard in geographic targeting.

NetAcuity Edge

All the features of Standard, plus global ZIP- and postcode-level targeting, derived from user-supplied data sourced from commercial partners.

NetAcuity Pulse

All the features of Edge and Standard, plus mobile-derived IP targeting.

Contact us to learn more about how IP Intelligence can help drive digital rights management at your organization.

www.digitalelement.com



North American Headquarters

155 Technology Parkway Suite 800
Norcross, GA 30092, USA
+1 678.258.6300

European Headquarters

8 Northumberland Avenue
London WC2N 5BY, United Kingdom
+44 (0) 2035 142 663

Compelling Reasons to Know More about Your Traffic

In an age that empowers consumers to watch TV on their terms—when and where they want—broadcasters have a myriad of challenges to face to manage the rights of their content. IP intelligence provides a simple one-source solution to enable broadcasters to manage digital rights and enhance the user experience.

Easy to deploy on an internal server, in less than 20 minutes, NetAcuity is queried by various supplied APIs, and its response time is superfast and reliable at less than 0.03 milliseconds—allowing it to handle up to 30,000 requests per second.

Digital Element is the only dedicated global provider of IP intelligence. With more than 15 years of experience and knowledge, specialized Latin American and U.S. teams can advise on how to manage digital rights using IP geolocation techniques. Knowing more about where the customer is coming from—and how they connect—will deliver critical information to manage digital rights.

Latin America Contact:

Jorgelina Striedinger, Vice President, Latin America

jstriedinger@digitalelement.com

www.digitalelement.com

Mobile: +1 404-409-3055 **Office:** +1 678-258-6343 **Skype:** Jorgie11