

F5 Friday: I am in UR HTTP Headers Sharing Geolocation Data



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#DNS #bigdata #F5 #webperf How'd you like some geolocation data with that HTTP request?



Application developers are aware (you are aware, aren't you?) that when applications are scaled using most modern load balancing services that the IP address of the application requests actually belong to the load balancing service. Application developers are further aware that this means they must somehow extract the actual client IP address from somewhere else, like the [X-Forwarded-For HTTP header](#).

Now, that's pretty much old news. Like I said, application developers are aware of this already.

What's new (and why I'm writing today) is the rising use of geolocation to support localized (and personalized) content. To do this, application developers need access to the geographical location indicated by either GPS coordinates or IP address. In most cases, application developers have to get this information themselves. This generally requires integration with some service that can provide this information despite the fact that infrastructure like BIG-IP and its DNS services, already have it and have paid the price (in terms of response time) to get it. Which means, ultimately, that applications pay the performance tax for geolocation data twice - once on the BIG-IP and once in the application.

Why, you are certainly wondering, can't the BIG-IP just forward *that* information in an HTTP header just like it does the client IP address?

Good question. The answer is that technically, there's no reason it can't. Licensing, however, is another story.

BIG-IP includes, today, a database of IP addresses that locates clients, geographically, based on client IP address. The F5 EULA, today, allows customers to use this information for a number of purposes, including GSLB load balancing decisions, access control decisions with location-based policies, identification of threats by country, location blocking of application requests, and redirection of traffic based on the client's geographic location. However, all decisions had to be made **on BIG-IP** itself and geographic information could not be shared or transmitted to any other device.

However, a new agreement allows customers an option to use the geo-location data outside of BIG-IP, subject to fees and certain restrictions. That means BIG-IP can pass on State, Province, or Region geographic data to applications using an easily accessible HTTP header.



How does that work?

Customers can now obtain a EULA waiver which permits certain off-box use cases. This allows customers to use the geolocation data included with BIG-IP in applications residing on a server or servers in an "off box" fashion. For example, location information may be embedded into an HTTP header or similar and then sent on to the server for it to perform some geo-location specific action.

Customers (existing or new) can contact their F5 sales representative to start the process of obtaining the waiver necessary to enable the legal use of this data in an off-box fashion. All that's necessary from a technical perspective is to determine how you want to share the data with the application. For example, you'll (meaning you, BIG-IP owner and you, application developer) will have to agree upon what HTTP header you'll want to use to share the data. Then voila! Developers have access to the data and can leverage it for existing or new applications to provide greater location-awareness and personalization.

If your organization has a BIG-IP (and that's a lot of organizations out there), check into this opportunity to reduce the performance tax on your applications that comes from double-dipping into geolocation data.

Your users (especially your mobile users) will appreciate it.

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