



Geospatial Management Office Geospatial Information Infrastructure (GII) Map Services

GII –Secure Map Services

The GIS API provides access to over 500 infrastructure data layers. The foundational data set in the GIS API is provided by the Homeland Security Infrastructure Program (HSIP), which includes data layers representing the 18 critical infrastructure and key resources (CKIR) sectors, national hazards, and base map layers.

The National Geospatial Intelligence Agency (NGA) is the primary steward for the HSIP data program. As such, NGA, through the HSIP data partners (public and private), enforce Data Use Agreements and Terms and Conditions (T&C) upon end users of the HSIP data. Because of the nature of this data, licensed or restricted for use, applications and system owners must adhere to the Data Use Agreement/T&C's as if they were an individual user. The DHS GMO has implemented a management control for application and system owners to connect to the GII map services through a token based security module allowing for the integrity of the data use and enforcement of T&C's.

The GII utilizes user authentication through the Homeland Security Information Network (HSIN) authentication service (AMS). For system or application level access, the GII will make use of token authentication. The token will be issued to the system owner and used to expose the HSIP REST end point. Unique tokens are generated per system owner and tracked through GII administration controls to maintain the integrity of the token use. Token authentication will be held on a calendar year basis – tokens will expire yearly requiring the system owner to renew data use agreements and T&C.

GII Token Process

Request a Token

To obtain a token, the system owner will need to e-mail the Geospatial Management Office (GMO): gmo@dhs.gov. In the e-mail include the following information:

1. Full name
2. E-mail
3. Phone and Extension
4. Organization/Agency
5. Name of System/Application that requires the token
6. Host URL(s) where the application is accessed, e.g., <https://gii.dhs.gov>

The GMO will review the information and once verified will generate and send a unique token to the e-mail provided in the request. The host URL(s) are an added security feature for the token authentication. When the token provided in the request has been verified as an active token the authentication will compare the host URL (left-part) from the request with the set of host URL(s) given with that token. If there is a match, then the request is granted, else the request is denied. The token to URL relationship is one to many, so you can have as many host URLs with one token as you like, or have one token for each host URL. The host URLs will be verified through the GMO before granting a token.



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If the information provided above changes, then you can send a change request to the GMO, gmo@dhs.gov, with the token given to you and the information that needs to be changed. You will receive a confirmation email once the change has been completed.

Accessing HSIP Layers with GII Token

The URL to add a single layer using our token authentication consists of several parts. Below is an example of what the URL will look like and a description for each part of the URL.

Complete URL Example:

<https://gii.dhs.gov/tokenauth/arcgis/rest/services/HSIP2013/LawEnforcement/MapServer/3?f=pjson&token=XXXX>

1. **Base URL:** This is the base URL that is used for accessing our token authentication. This must remain the same for all layer requests. The base URL section in the example URL above includes: <https://gii.dhs.gov/tokenauth/arcgis/rest/services/>
2. **Folder:** This is the folder in which the layer belongs. The folder section of the example URL above includes: HSIP2013/. The following are the different folders we currently have:
 - HSIP2013
 - DHS2013
 - DHSFacilities
3. **Category:** This is the category you want to retrieve, e.g. LawEnforcement, Government, or Agriculture, followed by /MapServer. The category section of the example URL above includes: LawEnforcement/MapServer/3?. To select an individual layer from a category, provide the layer ID after MapServer, e.g. /LawEnforcement/MapServer/3?

URL listing the HSIP Themes in the GII (Login authentication required):

- <https://gii.dhs.gov/tokenauth/arcgis/rest/services/HSIP2013/?f=pjson&token=XXXX>

URL listing the HSIP Subthemes in the GII (Login authentication required):

- <https://gii.dhs.gov/tokenauth/arcgis/rest/services/HSIP2013/LawEnforcement/MapServer?f=pjson&token=XXXX>

4. **Token String:** Append a query string to the end of the URL containing the token that was given to you for layer requests and also add the format f=json or f=pjson. f=pjson returns the data in a formatted json text document. The token string section of the example URL above includes: f=pjson&token=XXXX.