

This report is online at https://mappingsupport.com/p/surf_gis/list-federal-GIS-servers.pdf
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List of 50+ Federal GIS Servers

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See a mistake? Have relevant information to share? Please send me an email via this contact page: https://mappingsupport.com/p/gmap4_contact.html

As a software developer in the field of online maps I am aware that the federal government operates various GIS servers with open data. Anyone with the right tech savvy can access that data. No login credentials are required.

Problem: Up until now there has not been a master list of the internet addresses for all ‘public-facing’ federal GIS servers. No, you will not find this information on <https://www.data.gov/>.

Solution: This report is a first step at fixing this problem. The GIS server addresses listed below were found with simple Google searches.

Want to help? If you know of a federal GIS server that is not already listed below and that includes at least some open data (i.e. no login required) please send me an email via the contact link posted above. **Note that I am only looking for the ‘top’ endpoint for ArcGIS servers. Those links all end in “rest/services”.**

Caution: Some of the GIS data on these servers will be draft and/or temporary. Also data layers are sometimes renumbered with little to no warning. This will break any maps that are based on the former layer numbers. Another common problem is the use of **gibberish names** to identify data folders/layers/attributes combined with the lack of metadata to translate that gibberish into something useful. And when you want to ask a question about the data usually the GIS server lacks any contact information.

New to GIS? If you scroll down the list you will find links for MapServer layers with data for some national parks and other areas managed by the National Park Service. You might enjoy looking at some of this data. Perhaps you have visited one of these places or would like to go.

Gmap4: This is an enhanced Google map viewer that I developed that can display **any** public-facing MapServer and ImageServer data. A major upgrade to this GIS-viewing feature is currently being developed. Gmap4 can also display any WMS tiles, WMTS tiles and XYZ tiles. This browser app can be used by anyone for any **non-commercial** purpose. Gmap4 is a public service project and part of my way to “pay it forward”. For more information please see: <https://mappingsupport.com/p/gmap4-arcgis-layers-on-google-maps.html>
https://mappingsupport.com/p/gmap4_gis_help.html

Looking for state GIS servers? Here is a list I made of 50+ federal ArcGIS servers with open data. If you know about any public-facing ArcGIS servers I missed please let me know.

https://mappingsupport.com/p/surf_gis/list-state-GIS-servers.pdf

Looking for county or city GIS servers? Try a Google search. For example, if you search on: chicago “rest/services”

then around hit number 3 or 4 you should see this server

<https://gisapps.cityofchicago.org/arcgis/rest/services>

Your search string should always have “rest/services” including the quotes.

Of course at the county and city level you could simply call or email the GIS staff and ask. Here is one way to phrase the question: Do you have a public-facing ArcGIS server and, if so, what is the rest service endpoint?

Data.gov and GeoPlatform: These two websites can also help you find GIS servers. Enter your search criteria and then in the left sidebar find the “Format” section and select “ESRI Rest”. The hits will be for ArcGIS layers. In other words, these two sites index the ‘bottom’ of GIS servers. By contrast, this PDF report shows you the ‘top’ of the GIS servers. One advantage of these two sites is that you may find metadata that is not present when you look at the GIS server page for the same data. But be aware that many (most?) of the GIS layers on the various federal servers have not been submitted by the server administrators for inclusion on data.gov or geoplatform.

http v. https: If you find a GIS server that starts with http:// then change the link to https:// and see if that works. If so then you should use the https version of the server link.

U.S. National Grid: To display the U.S. National Grid (USNG) on top of any data, click Menu ==> UTM - USNG - LatLng ==> USNG. FEMA has adopted USNG as the coordinate system it will use for ground operations. [Directive 092-5](#).

Department of Agriculture (USDA)

USDA - Enterprise Application Services

Website: <https://www.ocio.usda.gov/about-ocio/enterprise-applications-services-eas>

GIS: <https://www.usda.gov/giseas1/rest/services>

USDA - Agricultural Research Service

Website: <https://www.ars.usda.gov/>

GIS: <https://www.nrrig.mwa.ars.usda.gov/server40/rest/services>

USDA - Economic Research Service

Website: <https://www.ers.usda.gov/>

GIS: <https://gis.ers.usda.gov/arcgis/rest/services>

USDA - Farm Service Agency

Aerial Photography Field Office

Website: <https://www.fsa.usda.gov/programs-and-services/aerial-photography/>

GIS: <https://gis.apfo.usda.gov/arcgis/rest/services>

USDA - Forest Service

“Authoritative” data from the Enterprise Data Warehouse (EDW)

Website: <https://data.fs.usda.gov/geodata/edw/mapServices.php>

GIS: <https://apps.fs.usda.gov/arcx/rest/services/EDW>

USDA - Forest Atlas

Website: <https://forest-atlas.fs.fed.us/>

GIS: https://forest-atlas.fs.fed.us/arcgis_fia/rest/services

USDA - Forest health

Website: <https://www.fs.fed.us/foresthealth>

GIS: <https://foresthealth.fs.usda.gov/arcgisfh/rest/services>

USDA - Natural Resources Conservation Service

Soil Survey Geographic (SSURGO)

Website: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/geo/>

GIS: https://server.arcgisonline.com/arcgis/rest/services/Specialty/Soil_Survey_Map/MapServer

USDA - Rural Development

Website: <https://www.rd.usda.gov/>

GIS: <https://rdgdwe.sc.egov.usda.gov/arcgis/rest/services>

Department of Commerce (DOC)

DOC - Census Bureau

Website: <https://www.census.gov/>

GIS: <https://tigerweb.geo.census.gov/arcgis/rest/services>

DOC - National Oceanic & Atmospheric Administration (NOAA)

GIS: <https://coast.noaa.gov/arcgis/rest/services/>

GIS: <https://maps1.coast.noaa.gov/arcgis/rest/services>

DOC - National Center for Environmental Prediction

Website: <http://www.ncep.noaa.gov/>

GIS: <https://idpgis.ncep.noaa.gov/arcgis/rest/services> Includes weather service layers

DOC - nowCOAST

Website: <https://nowcoast.noaa.gov/help/#!/section=abstract>

GIS: <https://nowcoast.noaa.gov/arcgis/rest/services>

DOC - National Center for Environmental Information

Website: <https://www.ngdc.noaa.gov/>

GIS: <https://gis.ngdc.noaa.gov/arcgis/rest/services>

GIS: <https://gis.ncdc.noaa.gov/arcgis/rest/services>

DOC - Electronic Nautical Charts (ENC)

Website: https://encdirect.noaa.gov/enc_direct/encdirect_download.html

GIS: <https://encdirect.noaa.gov/arcgis/rest/services>

NOAA's nautical charts are layer 3 at:

https://encdirect.noaa.gov/arcgis/rest/services/RNC/NOAA_RNC/MapServer

The nautical charts are also available as XYZ tiles from:

https://tileservice.charts.noaa.gov/tiles/50000_1/

GIS: <https://wrecks.nauticalcharts.noaa.gov/arcgis/rest/services>

Department of Defense (DOD)

DOD - Army Corps of Engineers

GIS: <http://rsc-agisu.usace.army.mil/s1arcgis/rest/services>

DOD - Readiness Support Center

Website: <https://rsc.usace.army.mil/>

GIS: <http://rsc-agisu.usace.army.mil/s1arcgis/rest/services>

Department of Education

DOEd - Various layers

Website: <http://54.243.190.239/ArcGIS/rest/services/>

not https

Department of Energy (DOE)

DOE - National Energy Technology Laboratory

Website: <https://www.netl.doe.gov/>

GIS: <https://gis.netl.doe.gov/arcgis/rest/services/>

Department of Health and Human Services (HHS)

HHS - Website: <https://www.hhs.gov/>

GIS: <https://geohealth.hhs.gov/dataaccess/rest/services>

HHS - Health Resources and Services Administration (HRSA)

Website: <https://www.hrsa.gov/>

GIS: <https://gis.hrsa.gov/arcgis/rest/services/>

HHS - Indian Health Service

Website: <https://www.ihs.gov/>

GIS: <https://gis.ihs.gov/ArcGIS/rest/services>

Department of Homeland Security (DHS)

DHS - Federal Emergency Management Agency (FEMA)

GIS: <https://hazards.fema.gov/gis/nfhl/rest/services>

GIS: <https://gis.fema.gov/REST/services>

GIS: <https://services.femadata.com/arcgis/rest/services>

Department of Housing and Urban Development (HUD)

HUD - GIS: <https://egis.hud.gov/arcgis/rest/services>

HUD - Location Affordability Portal

Website: <http://www.locationaffordability.info/>

GIS: <https://services.arcgis.com/VTyQ9soqVukalltT/arcgis/rest/services>

Department of the Interior (DOI)

DOI - Bureau of Land Management

Website: <https://www.blm.gov/>

GIS: <https://gis.blm.gov/arcgis/rest/services>

GIS: <https://eplanspatial.blm.gov/arcgis/rest/services>

GIS: <https://fire.ak.blm.gov/arcgis/rest/services>

GIS: <https://landscape.blm.gov/nwparcgs/rest/services>

DOI - Bureau of Ocean Energy Management

Website: <https://www.boem.gov/>

GIS: <https://gis.boem.gov/arcgis/rest/services>

DOI - Fish and Wildlife Service

Website: <https://www.fws.gov/>

GIS: <https://ecos.fws.gov/arcgis/rest/services>

Services Directory disabled

The services directory was disabled on the above server in direct response to this list being published. The above server is part of the Environmental Conservation Online System which has a website at <https://ecos.fws.gov/ecp/>. Through that website anyone can download a large amount of data. No reason has been given (I asked twice) why access to the **same data** via the GIS server is being banned.

GIS: <https://www.fws.gov/wetlands/arcgis/rest/services>

GIS: <https://gis.fws.gov/arcgis/rest/services>

GIS: <https://fwspublicservices.wim.usgs.gov/server/rest/services>

GIS: <https://tiles.arcgis.com/tiles/QVENGdaPbd4LUkLV/arcgis/rest/services>
GIS: <https://criticalhabitat.fws.gov/arcgis/rest/services/> **Temporarily unavailable**

DOI - National Park Service (NPS)

Website: <https://www.nps.gov/index.htm>
GIS: <https://mapservices.nps.gov/arcgis/rest/services>
GIS: <https://mobilegis.nps.gov/arcgis/rest/services>

DOI - Integrated Resource Management Applications

Website: <https://irma.nps.gov/Portal/>
GIS: <https://irmaservices.nps.gov/arcgis/rest/services>

DOI - Intermountain Region Geographic Resources Division

Website: <https://imgis.nps.gov/>
GIS: <https://imgis.nps.gov/arcgis/rest/services>

Areas managed by the National Park Service (partial list)

DOI - Crater Lake National Park

GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/CRLA_ParkAtlas/MapServer

DOI - Denali National Park - Draft Final

GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/DENA_PaTINA_WebMap_DraftFinal/MapServer

DOI - Gila Cliff Dwellings National Monument

GIS: https://imgis.nps.gov/arcgis/rest/services/Public/Gila_Cliff_Dwellings_NM/MapServer

DOI - Glacier National Park

GIS: https://imgis.nps.gov/arcgis/rest/services/Public/Glacier_NP/MapServer

DOI - Golden Gate National Recreation Area

GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/GOGA_LRTP_NRCR/MapServer

DOI - Grand Teton National Park

GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/GRTE_MooseWilson/MapServer

DOI - Lewis & Clark National Historic Trail

GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/LECL_ParkAtlas_2017/MapServer
GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/LECL_CMPMaps/MapServer
GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/LECL_Geotourism_2017/MapServer

DOI - Upper Delaware Scenic and Recreational River
GIS: https://imgis.nps.gov/arcgis/rest/services/DSC/UPDE_ParkAtlas_Public/MapServer

DOI - Office of Surface Mining Reclamation and Enforcement (OSMRE)
Website: <https://www.osmre.gov/>
GIS: <https://geoservices.osmre.gov/arcgis/rest/services>

DOI - US Geological Survey (USGS)
The national map
Website: <https://nationalmap.gov/>
GIS: <https://basemap.nationalmap.gov/arcgis/rest/services>
GIS: <https://services.nationalmap.gov/arcgis/rest/services>
GIS: <https://raster.nationalmap.gov/arcgis/rest/services>
GIS: <https://smallscale.nationalmap.gov/arcgis/rest/services>
GIS: <https://gis.usgs.gov/sciencebase2/rest/services>
GIS: <https://gis1.usgs.gov/arcgis/rest/services>

Here are two non-government data sources that are also used on the national map
GIS: https://services.arcgisonline.com/arcgis/rest/services/USA_Topo_Maps/MapServer
GIS: https://maps1.arcgisonline.com/arcgis/rest/services/NGA_US_National_Grid/MapServer **U.S. National Grid (USNG).**

DOI - Earthquake and landslide
Website: <https://earthquake.usgs.gov/>
Website: <https://landslides.usgs.gov/>
GIS: <https://earthquake.usgs.gov/arcgis/rest/services>

DOI - Wildland fire
Website: <https://www.usgs.gov/science/mission-areas/natural-hazards/wildfire-hazards>
GIS: <https://wildfire.cr.usgs.gov/arcgis/rest/services>
<https://rmgsc.cr.usgs.gov/arcgis/rest/services> Same data as one above
GIS: <https://landfire.cr.usgs.gov/arcgis/rest/services>

DOI - ScienceBase
Website: <https://www.sciencebase.gov/catalog/>
GIS: <https://www.sciencebase.gov/arcgis/rest/services>

DOI - Eastern Energy Resources Science Center
Website: <https://energy.usgs.gov/GeneralInfo/ScienceCenters/Eastern.aspx>
GIS: <https://eerscmap.usgs.gov/arcgis/rest/services>

DOI - LandsatLook
Website: <https://landsatlook.usgs.gov/>
GIS: <https://landsatlook.usgs.gov/arcgis/rest/services>

DOI - Astrogeology
Website: <https://astrogeology.usgs.gov/>
GIS: <https://webgis3.wr.usgs.gov/ArcGIS/rest/services>

DOI - Other USGS GIS servers
GIS: <https://isse.cr.usgs.gov/ArcGIS/rest/services>

Department of Justice (DOJ)

No GIS servers found

Department of Labor (DOL)

DOL - Mine Safety and Health Administration (MSHA)
Website: <https://www.msha.gov/>
GIS: <https://maps.hrsa.gov/arcgis/rest/services>

Department of State (DOS)

No GIS servers found

Department of Transportation (DOT)

DOT - Bureau of Transportation Statistics
Website: <https://www.bts.gov/>
GIS: <https://maps.bts.dot.gov/services/rest/services>

DOT - Federal Aviation Administration (FAA)
No GIS servers found

DOT - Federal Railroad Administration
Website: <https://www.fra.dot.gov/Page/P0001>
GIS: <http://fragis.fra.dot.gov/fragis/rest/services>

Department of the Treasury

No GIS servers found

Department of Veterans Affairs

No GIS servers found

Independent Agencies

Environmental Protection Agency (EPA)

EPA - Various layers

GIS: <https://gispub4.epa.gov/arcgis/rest/services>

GIS: <https://geodata.epa.gov/ArcGIS/rest/services>

GIS: <https://map23.epa.gov/ArcGIS/rest/services>

EPA - Environmental Data Gateway (EDG)

Website: <https://edg.epa.gov/metadata/catalog/main/home.page>

GIS: <https://edg.epa.gov/ArcGIS/rest/services>

EPA - EnviroAtlas

Website: <https://www.epa.gov/enviroatlas>

GIS: <https://enviroatlas.epa.gov/arcgis/rest/services>

EPA - Environmental Justice Screening and Mapping

Website: <https://www.epa.gov/ejscreen>

GIS: <https://ejscreen.epa.gov/arcgis/rest/services>

EPA - WATERS (Watershed Assessment, Tracking & Environmental Results System)

Website: <https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system>

GIS: <https://watersgeo.epa.gov/ArcGIS/rest/services>

National Aeronautics and Space Administration (NASA)

NASA - SERVIR

Website: <https://www.servirglobal.net/>

GIS: <http://gis1.servirglobal.net/arcgis/rest/services>

NASA - MODIS and VIIRS imagery as ImageServer data:

GIS: <https://modis.arcgis.com/arcgis/rest/services>

NASA - Global Imagery Browse Services (GIBS)

Website: <https://earthdata.nasa.gov/about/science-system-description/eosdis-components/global-imagery-browse-services-gibs>

GIS: The GIBS tile data is not hosted on an ArcGIS server. Instead, these tiles can be accessed via WMTS plus other tile specifications.

Tennessee Valley Authority (TVA)

Website: <https://www.tva.gov/>

GIS: <https://egismaps.tva.gov/arcgis/rest/services>

U.S. Post Office

GIS: <https://gis.usps.com/arcgis/rest/services>