

GEOINT Services | MapCache

A Mobile App for Offline Maps



What Is MapCache?

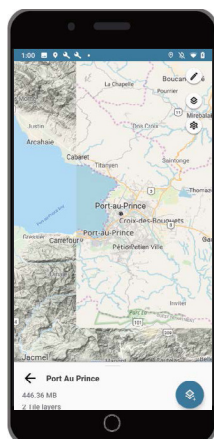
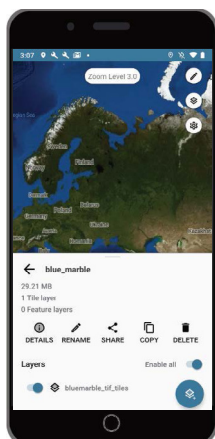


MapCache is an easy-to-use mobile application that brings advanced mapping features from NGA's GeoPackage library to those in the field. The Open Geospatial Consortium (OGC) designed GeoPackage as an open, platform-independent, portable, compact data format for transferring geospatial information. MapCache utilizes the functionality of GeoPackage by making it available on mobile devices in a way that is as easy as

using the built-in maps on your smart phone. MapCache gives users the ability to view, download and share GeoPackages offline. MapCache is ideal for disaster response personnel, search and rescue teams, and others that need to interface with mobile maps to assist with their tasks in any environment both connected and disconnected. Users can install MapCache on their Android or iOS devices.

What Can Users Do With MapCache?

- ▶ Save maps for offline use in mobile applications
- ▶ Manage and share GeoPackages between mobile applications
- ▶ View feature and tile layers from GeoPackages
- ▶ Disconnected peer-to-peer sharing is supported through Airdrop or Android Beam
- ▶ Download tiles into a GeoPackage from any XYZ tile server



GeoPackage data loaded in MapCache - showing Android Interface
Left & Middle - Displaying Tiles, Right - Displaying Features

What Is GEOINT Services?

The GEOINT Services (GS) initiative is NGA's delivery of geospatial content and analytics through commonly used, cloud-based geospatial tools. GEOINT services are web-based tools and data that allow customers to find, get, use, and contribute geospatial capabilities, data, and best practices. GEOINT services are available to use across the enterprise.

What capabilities are available for mission users?

- ▶ Big-data processing and analytics
- ▶ Editable maps of the world
- ▶ Enhanced collaboration
- ▶ High-performance spatial analytics
- ▶ High-speed streaming of imagery
- ▶ Integrated geospatial content services from multiple sources

How can users access GEOINT services?

NIPRNet: <https://home.gs.mil>
SIPRNet: <https://home.gs.smil.mil>
JWICS: <https://home.gs.ic.gov/>

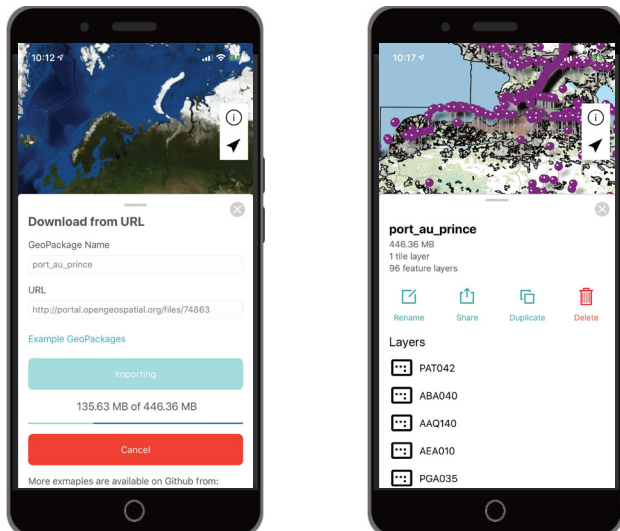


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Benefits Of MapCache

- ▶ Provides data in the interoperable and OGC-compliant GeoPackage format that can be used in connected and disconnected environments
- ▶ Simplifies the process for sharing GeoPackage data on mobile devices
- ▶ Stores maps offline on mobile devices so the application remains functional even if the device loses network connection



*GeoPackage data loaded in MapCache - showing iOS Interface
Left - Importing GeoPackage, Right - Displaying and Editing Layers*

Impact To Mission

- ▶ Significantly decreases the time and complexity of managing and sharing geospatial data on mobile devices
- ▶ Supports a range of missions including disaster response, complex emergencies, security events, remote deployments, and more

How Can Users Access MapCache?

MapCache is available on the GEOINT App store, and will soon be on both Google Play and the App Store:

- ▶ GEOINT App Store: <https://apps.nga.mil>
- ▶ App Store: shorturl.at/iFHM4
- ▶ Google Play: <https://cutt.ly/1ptd70T>

For More Information

Users can visit

https://rocketchat.gs.mil/channel/mapcache_askanexpert

to ask questions or offer enhancement suggestions

Technology Talk For Developers And IT Managers: How Does MapCache Work?

MapCache is a secure, mobile platform that can be easily downloaded from the GEOINT App Store, Google Play, and the App Store to Android and iOS devices. The MapCache code is open source. Developing MapCache under an open-source license allows for collaborative development among analysts, developers, and geospatial enthusiasts. Now a broader, more diverse community can work together to bring improvements to the program baseline faster, which ultimately benefits the entire geospatial enterprise. MapCache is currently licensed under the MIT License which formally allows the software to be used, modified and shared (in accordance with license notices and disclaimers) for any purpose without infringing on any patents or concern for royalties. Find more information at <http://ngageoint.github.io/GeoPackage/>

Future Releases Will Include:

- ▶ Editable feature layers
- ▶ Ability to draw feature layers as tiles
- ▶ Desktop application

NGA.mil for more information