

# M.App X

Cloud-deployable image intelligence







Defense and Intelligence agencies are faced with many challenges, such as producing and managing geospatial intelligence in the face of escalating global tensions, changing nature of threats, and limited capacity.

Providing near real-time actionable information is paramount, but the traditional desktop workstation model for analysts typically means that maps are outdated by the time they are disseminated to mobile units and decision makers.

Also, how can agencies efficiently collect, organize, process, and archive massive amounts of disparate data such as images, terrains, annotations, feature sets, and stereo pairs?

These agencies grapple with these challenges while contending with limited budgets for software, hardware, and licensing needs.

The traditional workstation model is saddled with problems, the largest being the inability to keep up with constantly changing intelligence. Information discrepancies can cause maps to be constantly out-of-date and unusable. In addition, traditional desktop-based approaches often lead to massive hardware and licensing expenses and time-consuming software and hardware administrative management.

M.App X is an enterprise solution that fosters geospatial tradecraft creation, common usage and secure sharing of the latest intel, ultimately making the latest information accessible and reusable. Built on decades of experience in providing image analysis capabilities, M.App X contains industry-specific tools and workflows for the GEOINT community and security organizations.

## **What makes M.App X unique?**

Hexagon's Geospatial division spatial modeling architecture is the foundation of M.App X. A revolutionary approach to visual programming, spatial modeling provides near-immediate feedback and previews for analyzing spatial data while taking location into account. M.App X enables analysts to graphically model raster, vector, and point cloud processing workflows to create automated processes that can be executed rapidly and securely. The solution ultimately delivers integrated information products that ensure the right individuals can make timely decisions.

Capturing geospatial tradecraft and sharing it as dynamic services across the enterprise is easy in M.App X. Image exploitation processes are performed on the M.App X server and displayed to the end user in a rich web-based client application, eliminating the cost and need for constant upkeep of multiple individually powerful computing workstations, in which each must process data.

The solution can be hosted in the cloud or on-premises to meet security requirements.



# Top 5 reasons to choose M.App X to deliver your GEOINT

## 1. Immediate savings

Unified and centralized software management reduces administrative costs. M.App X's rich client is web-based, which reduces the need for every analyst to have an expensive workstation. These savings allow you to stretch your hardware budget.

Licensing costs are also reduced because M.App X provides all the core requirements in a single platform. Since it is based on open standards, M.App X can, for example, process imagery, radar, point clouds, and other features in a single environment rather than require licenses for multiple software packages.

Another benefit of the cloud-based platform is that all analysts have access to the same version of software. Very little administrative management is required because only the server needs to be updated; no more updating individual workstations. Staying up to date on the latest features becomes faster and easier as a result.

## 2. Faster decision making

M.App X's unique spatial data modeling environment provides near-immediate feedback and previews so you can analyze and geo-fuse data and events in real time to provide actionable intelligence.

Using the most advanced web technologies, the M.App X environment delivers desktop-like performance, quickly updating your view and dynamic experience with real-life visualizations.

## 3. Customize your experience

The geoprocessing environment is also extensible, allowing domain experts to plug in their best-practice capabilities within a common user experience.

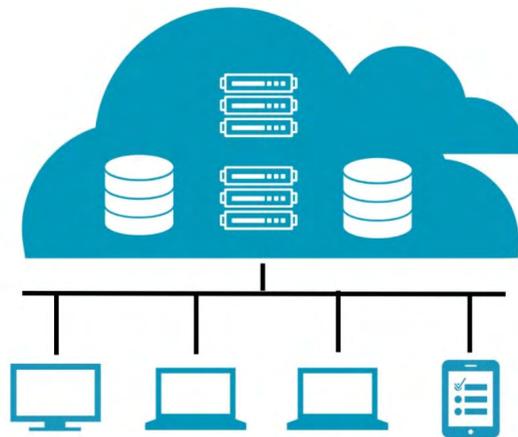
Software providers, even third parties, can use open standards to deliver new capabilities to a cloud-based platform in a timely fashion.

## 4. Efficient use of system resources

This cloud-based technology helps defense agencies move away from expensive legacy applications and hosting and provides robust support for remote and mobile users. Since all computation is performed on the M.App X server, system resources are always efficiently utilized and performance can be balanced to meet the needs of all users currently exploiting the system.

## 5. Disseminate and share easily

Because M.App X is cloud-based, people in the field and decision makers always have instant access to the latest information and share the same view. This benefit ultimately makes it easier to share intel and collaborate on projects. Key information is disseminated in a timely manner because the standard web-based platform doesn't require conversion to other formats before distribution. The M.App X client employs responsive web design, which adapts to the user's environment based on screen size, platform, and orientation.



Centralized storage and computation

## The M.App X difference

M.App X incorporates all the geospatial analyst and imagery analyst's requirements in a streamlined, easy-to-use environment. Ultimately, M.App X simplifies the viewing, analysis, and reporting of geospatial information. It offers simplified data access, defense workflows, and on-premises (private cloud) or public cloud hosting to provide centralized storage and computation. All the required geospatial software for a defense user is consolidated in one place, greatly simplifying version management and control. The rich web-based client runs in modern browsers, and the workstations deployed can range from desktop to laptop to tablet.

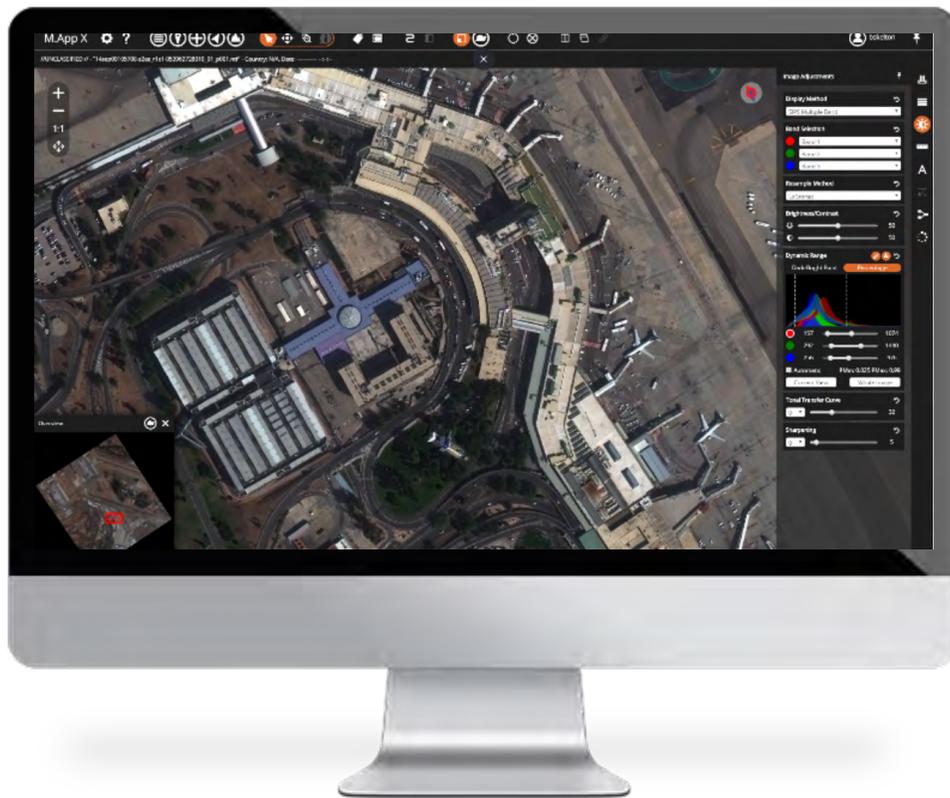
## Noteworthy features

### Apply enhancements to imagery on the fly

With dynamic imagery adjustment, you can immediately make your imagery more interpretable. Enhancements include band selection, adjusting resampling methods, brightness, contrast, and color balance using an interactive histogram. Use image processing chains that meet the United States National Geospatial-Intelligence Agency (NGA) SIPS (Softcopy Image Processing Standard) specifications.

### Precise mensuration

Precise positioning is critical to accurate intelligence. Measure position, height, bearing, angle, polygon area, perimeter, and more using rigorous sensor models that incorporate precise elevation and sensor position information.



Apply enhancements to imagery on the fly

## Up-to-date feature repository

Keep your centralized geospatial data repository current so everyone in the organization has the latest information. Create, replace, update, and delete features using the enhanced transactional Web Feature Service (WFS-T). Collect in 2D or 3D coordinates and edit feature attributes.

## Smart data management

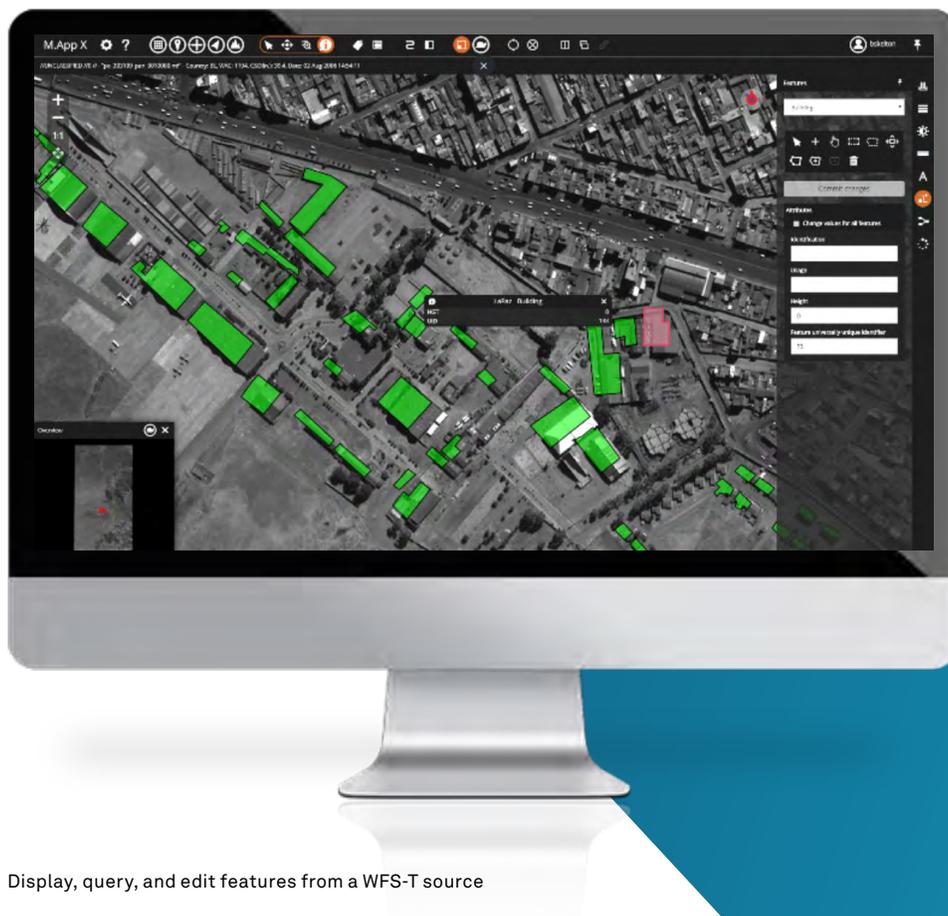
Collect your working data in one place and easily share it with colleagues. Using “Shoebox” lists of all the working data associated with your open project or projects, you can organize data such as images, terrains, annotations, feature sets, stereo pairs, and documents. Use multiple Shoeboxes to organize data any way you want.

## Concentrate on specifics using map layers

Identify features that have changed over time by grouping features into separate layers and adding those layers to your maps. You can turn layers on or off as needed, swipe layers away from others, or change the transparency of a layer to see the layer beneath.

## Easy to understand maps and reports

Make your maps and reports more illustrative and interpretable using a rich styling library of symbols, lines, brushes, polygons, and text to identify features. Annotation positions are reported and stored in map space to facilitate overlay on other imagery.



Display, query, and edit features from a WFS-T source



Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications. Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Safety, Infrastructure & Geospatial division improves the resilience and sustainability of the world's critical services and infrastructure. Our solutions turn complex data about people, places and assets into meaningful information and capabilities for better, faster decision-making in public safety, utilities, defense, transportation and government.

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