



Executive Summary

GXP Xplorer® Platform for Enterprise

Commercial and Custom Applications

GXP[™]
Geospatial eXploitation Products[™]

Geospatial solutions
to ensure a safer world.

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1. Introduction

BAE Systems' GXP™ software solutions has developed a portfolio of software tools and services, utilizing emerging technology like Artificial Intelligence (AI)/Machine Learning (ML), to allow analysts, operators, and warfighters timely access to the data they need, when it's needed. Today's civilian agency and enterprise businesses face challenges similar to those of which BAE Systems has worked for more than two decades to solve within the Department of Defense and federal government. Big data, cloud infrastructure, and data security are just a few of the critical items that can cause stress for an organization. The GXP Xplorer® Platform provides an edge over the competition by bringing together extensive document management, geographic information, disparate databases, and mobile data collection all into one easily adoptable framework; providing next generation analytics, dashboards, and visualizations for users of all experience levels.

All GXP software product and service offerings are rated at technical readiness level 9 and are available as commercial off-the-shelf (COTS) products directly from BAE Systems or through the General Services Administration (GSA) Schedule.

2. Customization

GXP solutions embrace a platform strategy to enable a flexible structure for the creation of solutions that meet your organization's unique workflows and requirements. The portfolio of products contained within the GXP Xplorer Platform can be deployed out-of-the-box or customized to provide streamlined workflows and analytics. Data and workflows are cataloged and structured in a way that allows employees, end users, and customers to access an enterprise solution that not only looks and feels unique, but is efficiently tailored to your own agency or business processes. This strategy provides a solid foundation for data and content management, interoperability, and scalability ensuring that the system is able to grow with and continue to meet your organization's long-term needs.

Once armed with the GXP Xplorer Platform, organizations can continue to adopt new ways to increase efficiency while transitioning away from complex workflows that come along as business and (re)usable data needs become more overwhelming. The GXP Xplorer Platform tool set continues to improve; the addition of new capabilities are frequent, and shared across diverse user community groups with specific needs.

3. Ease of Use

Comprised of a core suite of products, the GXP Xplorer Platform represents the culmination of several decades of experience and application development with an emphasis on accuracy, quality, and ease of use. This enables employees of all technical levels to quickly, and intuitively, adapt to new workflows. GXP software solutions offers a professional services team that astutely works with classified and non-classified organizations to help identify bottle necks in important work processes and craft new business-enabling outcomes of data analytics; helping to develop time saving solutions that allows entities to focus on business goals.

GXP Xplorer Platform core components work seamlessly together, containing an industry leading Application Programming Interface (API) for easy integration with other systems and programs, which can be accessed from any common web browser.

4. The Power of Geospatial Intelligence

Geospatial intelligence can help to drive both strategic and tactical decisions. GXP Xplorer Platform contains a powerful geospatial visualization environment relied upon by DoD, U.S. Intelligence Community (IC), Public Safety, and other defense agencies for many years, which allows users to search for and discover documents, data, and imagery over time; providing context for how they relate to a specific location.

There are many Geographic Information Systems used to collect and present basic information on a map. GXP Xplorer Platform differentiators go well beyond this information by providing analytical methods that allow agencies and business to truly understand why location and time matters. Taking advantage of this critical intelligence provides a significant edge over the competition, especially when defensible time-sensitive decisions need to be supported by accurate, correlated, and all-source intel.

5. Cloud Hosted

While some user groups prefer, or are required by regulation, to maintain an on premise solution, in many environments there is growing demand to leverage the evolving benefits of hybrid- or fully extensible cloud-hosted solutions. This allows entities to scale, capitalize diverse libraries of cross-domain data, and provide for agile plug-and-play applications, analytics, and emerging technologies integration without a large infrastructure investment. GXP Xplorer Platform is deployed in both Amazon Web Services (AWS) and Microsoft Azure® to ensure flexibility in both accessing and securing a wide variety of business data.

GXP software solutions offer a dedicated DevOps team committed to ensuring that user communities deployed with cloud services have the most productive and intuitive user experience possible. The GXP Xplorer Platform has been completely re-architected to utilize all of the capabilities the cloud has to offer such as load balancing, distributed processing, and fail-safe redundancy within a secure environment, just to name a few. GXP software solutions excel at offering fully managed or custom hybrid cloud models for non-DoD and IC customers.

6. Complex Data Problems

Data ranges in complexity. GXP Xplorer Platform can be set up to handle complex metadata of massive geospatial files as well as catalog data at rest, correlate, and manage large volumes of data from across disparate domains and legacy systems, especially when that data needs to be secure and utilized across the globe.

7. Analytics

GXP Xplorer Platform comes equipped with several ways to perform analytics. Computer Vision (CV), AI, and Natural Language Processing (NLP) are just a few of the methods that can be applied to documents and data, and injected into workflows.

8. Mobile Support

Mobile devices are becoming more prevalent in everyday life allowing access to work anywhere, from any device, at any time. With 5G just on the horizon, BAE Systems has developed several mobile solutions for use on both Apple® and Android™ devices that are ready to meet the revolution. The need for robust data collection, the movement of data to and from the cloud, and the value-added capability to track movement of personnel and assets while collaborating in real time with operatives in the field, require an agile enterprise solution capable of scaling at the speed of your functional needs.



GXP OnScene is just one of the Mobile Offerings freely available on either iOS, or Android, app Markets.

GXP mobile applications are free to download and employ on iOS and Android devices for GXP Xplorer Platform customers. Customizable mobile solutions are maintained and enhanced to meet unique application needs, while seamlessly fitting into existing enterprise solutions.

9. Compatibility

GXP software solutions are built to fit seamlessly into the existing architecture of your enterprise. With a well-documented, standards-based API, integrations happen fluidly both up and down stream of the base solution suite. GXP Xplorer Platform focuses on extensibility for modifications and enhancements, including workflow customizations and optimizations. The software's plug-in architecture supports simple connectors to new or existing systems, ensuring legacy systems and data stay relevant in a federated enterprise ecosystem. Use of Open Source components within the solution ensures best-of-breed infrastructure with frequent updates, rapid improvement cycles, and an active community with security and support focus. GXP Xplorer is built to Open Geospatial Consortium, known as OGC®, standards and compliance. Developing to OGC community standards allows for interoperability, including data sharing and streaming capabilities, as well as support for nearly all imagery and geospatial data formats, with more always on the way.

Solutions are scalable for a variety of computing platform requirements. Security is paramount. Components have been accredited to Intelligence Community Directive (ICD) 503 requirements in multiple commercial and government environments, including classified networks. Security features are baked in at the core code, including:

- Secure Sockets Layer (SSL) encoding of data transfer
- Secured certificate authentication
- Integration with Lightweight Directory Access Protocol (LDAP) for user authentication

- Public key infrastructure (PKI)
- Assigned authorization roles
- Customized password policies
- Data access through Discretionary Access Control (DAC)
- Use of user roles to protect data
- Compartmentalize data based on user accessibility
- Audit security-relevant transactions

10. GXP Xplorer Platform Licensing

GXP Xplorer Platform and its components can be licensed on a per user basis, system capacity, or by an agreed upon metric unique to the intended business process. This flexibility ensures that BAE Systems can right size a solution that makes sense and allows you to get the most of all of your data, while focusing on your end-user community or customers' needs. The GXP Xplorer Platform will empower your organization with the confidence it needs, ready to meet the demands of your business today and in the future.

11. Partner Network

GXP software solutions group maintains a robust partner network, enabling efficient seamless connections between user communities, data providers, and complimentary first- and third-party solutions; adding an even more content enrichment value to supplement business and data process needs.

12. Partner Success Story

BAE Systems cloud-hosted solutions enhance first responder and community preparedness, response, and recovery from natural or man-made disasters.



Our expertise in delivering Public Safety and Disaster Response solutions for our customers utilizes AWS services to provide a secure, reliable, and highly available infrastructure to our mission critical solutions. We work with our first-response customers to understand their needs and provide GXP software solutions to enable optimal response protocols.

GXP software capabilities align to AWS Disaster Response Competency on multiple levels:

- Mapping and Location Analytics: GXP software helps develop effective operating plans to prepare for an event or crisis
- Emergency Operations Management: GXP software creates a Common Operating Picture (COP) of the Area of Interest (AOI) from which multiple agencies can collaborate, share, and respond to an incident
- Workforce Management: GXP software allows mobile responders to share their location as situations evolve and coordinate response via Gridded Reference Graphics (GRGs)
- Messaging and Communication: GXP software enables mass-notification, communication between ground personnel and aerial support, and real-time location sharing

Public Case Studies and Videos:

- Disaster Recovery: [Hurricane Harvey Relief Efforts](#)
- Hosted Cloud: [AWS Premier Partner Program](#)
- GXP OpsView® software awarded [DHS Public Safety Act designation](#)
- Emergency Management: [GXP Solutions for Humanitarian Aid](#)
- Critical Infrastructure: [Safety & Security of Critical Facilities](#)
- Enterprise Document Management: [GXP Xplorer Platform](#)

13. Department of Homeland Security SAFETY Act Designation



GXP Xplorer software is a robust and reliable solution and is a featured component in a SAFETY Act Designation determination recently received by BAE Systems. In order to receive Designation, the technology needs to be determined to be effective in defense against acts of terrorism. Establishing effectiveness includes operational testing, suitable performance, favorable audits, quality assurance, and other factors. Our security and product sustainment plans are an essential part of the SAFETY Act review process. BAE Systems provided descriptions of our security control baseline, including access control, audit and accountability, certification, accreditation, security assessments, configuration management, personnel security, and physical and environmental protection.

14. The GXP Software Solutions Advantage

One of the biggest advantages of deploying GXP software solutions is our commitment to being a partner in your success. Our primary objective is to ensure that any solution

deployed into your enterprise makes a meaningful impact in meeting your objectives and goals.

15. Conclusion

BAE Systems GXP software solutions have been trusted across the globe to solve many of the most complex issues facing our nation. GXP software has been leveraged by every level of the Department of Defense, as well as State and local law enforcement agencies. As a noted premier solution provider, GXP software stands ready to assist in strengthening your organization with advanced data management and analytical methods through an understanding built on decades of experience in this space; delivering unrivaled capability and expertise to solve complex problems and maximize your organization's mission.

BAE Systems invites you to find out more information about GXP software and the products mentioned in this whitepaper by visiting <http://www.geospatialexploitationproducts.com> or reaching out to the company point of contact.

16. Contact Information

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BAE Systems, Inc. is the U.S. subsidiary of BAE Systems plc, a global defense, security and aerospace company which delivers a full range of products and services for air, land, and naval forces, as well as advanced electronics, security, information technology solutions, and customer support services.

Supporting development of the most advanced geospatial intelligence, BAE Systems Geospatial eXploitation Products™ (GXP™) software solutions enables rapid discovery, exploitation, and dissemination of mission-critical geospatial data. From key military, security, and incident response operations, to a variety of commercial development and research initiatives, GXP software provides a comprehensive suite of solutions to inform effective decision-making and ensure a safer world.

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