

OGC SPATIAL DATA INFRASTRUCTURE MODERNIZATION PROJECT SUBMISSION

T-Kartor USA Corporation

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Introduction

T-Kartor was founded in Sweden in 1985. Today, T-Kartor stands as a global geospatial authority in defense, public safety, and wayfinding, with a presence across Scandinavia, the U.K., and the United States. We unite cartographic craft with cutting-edge geospatial technology to empower organizations - spanning defense, public safety, and urban planning - with real-time mapping, data fusion, and navigation tools. T-Kartor transforms complex geospatial information into actionable insights, helping organizations overcome challenges, explore new possibilities, and discover innovative approaches for success.

T-Kartor is proud to be an OGC partner, fully committed to using standards to ensure interoperability between disparate systems and organizations. As a global pioneer in delivering innovative geospatial solutions, T-Kartor understands the need to constantly evolve and adjust to changes in governance, technology, and people.

This technical paper highlights T-Kartor's modern spatial data infrastructure (SDI) solution called Iris and addresses key areas OGC has identified as critical for an SDI of the future. Our goal is to see the facts presented in this paper about Iris validated during an upcoming OGC Testbed activity.

Introducing T-Kartor Iris™

T-Kartor Iris is a cutting-edge information management solution designed to manage spatial and non-spatial data across siloed environments (both secure and open). Purpose-built for modern DevOps and highly secure environments, Iris empowers organizations to visualize and distribute geospatial data with accuracy and ease, driving informed, real-time decision-making. Iris enables real-time collaboration, visualization, and sharing of data securely between all connected users, and great emphasis has been placed on creating a modern, intuitive, secure, and user-friendly experience throughout the application.

Iris can ingest information in over 300 different spatial and non-spatial formats by leveraging GDAL, OGR, and other open source libraries for format support. Iris is operational on both commercial and government networks (TRL Level 9) and has been accredited for use on secure NATO networks. Iris was recently selected as the SDI solution for a NATO exercise called Arctic Strike, bringing together information from over 12 different countries into the same operational environment.

Iris as the Core of a Modern SDI

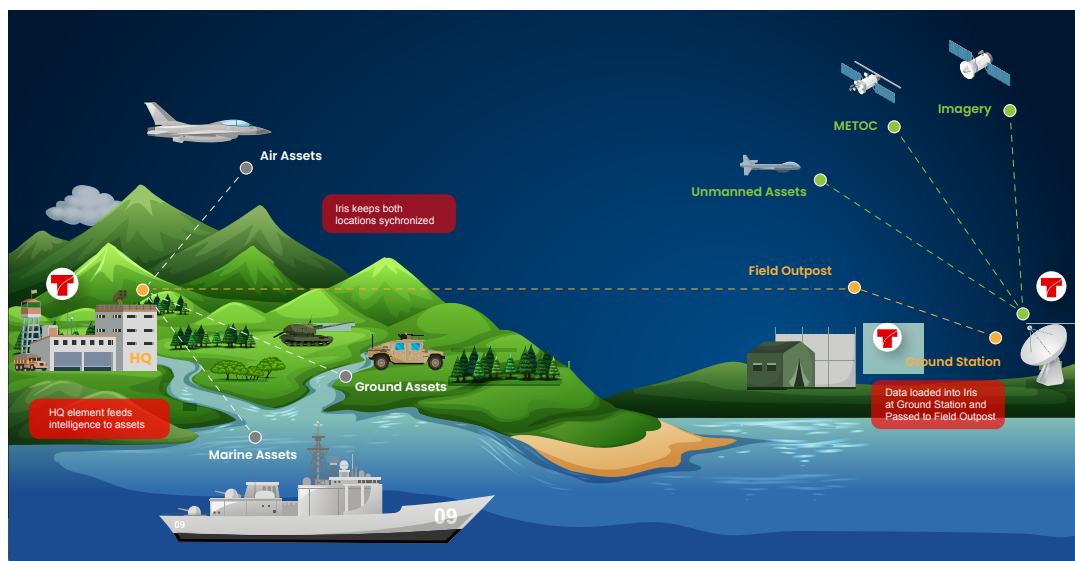
Iris was built upon open source to maximize innovation, uphold the use of open standards, and ensure interoperability without vendor lock-in. Iris is fully containerized, so it can be installed on a variety of physical and virtual hardware, in either large or small footprints (enterprise to single-board computer). Individual microservices are created and destroyed elastically as storage and compute resources are needed.

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To assist in data discovery, access, and interoperability all spatial data automatically becomes an OGC web service (WMS/WFS/WCS/WMTS, as appropriate) upon ingestion into Iris. Any existing metadata associated with each item is used to auto-generate 'tags', titles, and descriptions for each service. Best of all, if using a federated system of Iris deployments, any update to one instance is automatically propagated to all other connected instances.

To maximize interoperability with existing systems and third-party applications, Iris includes a RESTful API that can be leveraged for machine-to-machine communication, or for integrating information discovery inside of another system. This means Iris can promote the idea of a modern SDI being a system-of-systems, not a single, monolithic system to rule them all.

T-Kartor is actively developing integrations with ArcGIS Pro, QGIS, and Cesium. As part of our roadmap, we're adding a vector data store designed to support AI/ML workflows - making Iris a true bridge between spatial data infrastructure and geospatial intelligence.



Operational overview of Iris in a production environment

Ready for Evaluation Today

T-Kartor Iris is commercially available today and is ready to be validated as a component of a modern SDI. For the purposes of evaluation, access to the public-facing demonstration instance of Iris – hosted on Microsoft Azure public cloud resources – will be provided to any OGC employee or member assigned to the evaluation. Access to the Iris API will also be provided for proper validation of machine-to-machine communication.

We believe that T-Kartor Iris embodies a modern SDI. Built upon technology designed to scale elastically, and ensure data is always accessible via open standards, Iris enables organizations to share information easily through federated discovery and retrieval. Administrators have the power to apply any governance model that meets mission needs and enable integration and machine-to-machine communication through a robust API. And whether you are a skilled administrator, experienced analyst, or a novice data seeker, Iris enables people of varying skill levels to efficiently discover information and use it in any format needed to satisfy mission needs.

We are excited to see T-Kartor Iris evaluated by GC as part of its next Testbed.