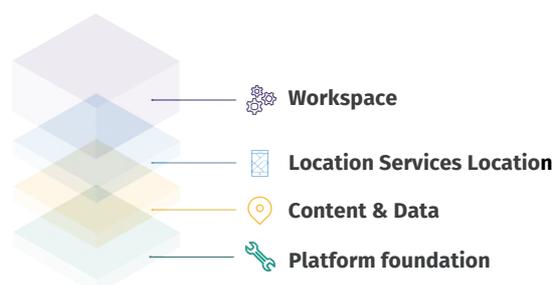


HERE Workspace

HERE Workspace is cloud based environment that enables creation, deployment and scaling of location-centric data products, services and applications. In the anatomy of X-as-a-Service, HERE Workspace is Data-as-a-Service, i.e. provides access to location-domain specific services & content, in addition to tools and capabilities for advanced data modeling, API services, pipeline configuration, and advanced analytics.

HERE Workspace allows the customers to:

- Combine proprietary data with map and other location data to create new products
- Develop and customize new location applications and services
- Easy access to fresh map-content and location intelligence (RESTful services, SDKs)
- Scenario based analytics / location value evaluation



Location-domain specific services & content in Workspace:

HERE Data in HERE Workspace consists of global map content with more than 800 rich and highly accurate attributes, along with other dynamic data sets such as weather and traffic. HERE's data can be used for enrichment i.e. adding value to your proprietary data using analytics, location centric Big-Data tools and by accessing hundreds of map-attributes in Workspace. You can also enhance your proprietary data to increase the geographic coverage, granularity or quality of the data set

- **Standardized design:** Access to rich HERE data with single global schema and consistent tile structure
- **Enterprise grade:** Highly accurate and feature rich map content with more than 800 attributes, with weekly updates with validation
- **Enhanced performance:** Optimized maps provide enhanced performance resulting in improved computational resources, performance latency and organizational resources
- **Enriched data-modeling:** Enhance your data-modelling capabilities by creating a relational model to understand how everything relates to your datasets, by capitalizing on multiple map attributes
- **Efficient Usage:** Catalog based design allows the customer to access only relevant layers rather than monolithic chunk of data. Incremental updates save processing costs and time as only those partitions need to be updated that have changed

HERE Location Services in Workspace enable the users to create customized web or mobile services based on your own business logic and data. Customers can access services like search (incl. geocoding and places), rendering, routing, and transit.

- **Customizability:** HERE Workspace allows the service owners/developers to customize the services by combining HERE Data with their own proprietary data
- **Consistent & standardized:** The APIs of all location services in HERE Workspace are standardized and have a common backend. This allows for a seamless experience, reduced complexity, increased reliability and increased performance
- **Easy monitoring & control:** HERE Workspace allows the service owner/developer to easily monitor and access application logs. In addition, Workspace allows users and apps to grant privileges and to obtain service authentication credentials

HERE Workspace specifications

Development enablement

- **Map enrichment:** Create customized maps using the HERE map as a basis and enhance by adding other HERE and/or 3rd party data
- **Service and application creation:** Use APIs for customizing HERE Location Services such as Search (incl. Geocoding) Routing, Transit and others or create new, user-defined location services that are easily operationalized and put in production
- **Event processing:** Analyze continuous stream of data and combine it with location attributes to create insights from real world events. Report or communicate those insights in real-time and high-performance to a wide number of connected devices
- **Location-Data analytics:** Transform and derive insights from location data with other data using simple arithmetic, Boolean functions, machine learning algorithms with flexibility to use preferred data science environment
- **Data archiving:** Store and retrieve small- and big-size data based on criteria defined by the user
- **Data visualization:** Represent data in graphical form such as graphs, charts, and in context of maps to aid the process of software development

Data administration

- **Supported formats:** SDII, Sensoris, GeoJSON
- **BYOD (Bring Your Own Data):** Ability to ingest any data with user-defined data dictionary
- **3V's (Volume, Variety, Velocity) of data:** Supports streaming data (continuous stream of events), volatile data (cache of frequently changing data), versioned data (geographically partitioned data), index data (persistent data this is indexed by time)

Cloud-to-edge computing

- **Data SDK for Java & Scala** for large-scale location data processing and runtime orchestration
- **Data SDK for Python** for large-scale location data analytics/ML/AI modeling and visualization
- **Data SDK for C++** to connect devices like smartphone, IoT robots, and vehicles facilitating read/write access to/from HERE Workspace
- **Data SDK for Typescript** to connect web applications and connected devices facilitating access from HERE Workspace

Business benefits of using HERE Workspace

Increased revenue potentials: Develop products and services that meet market-needs, thus allowing you greater revenue opportunities, increased customer satisfaction and higher net life-time customer value

Cost avoidance/reduction: Avoid costs associated with setting-up and maintaining location platform capabilities. Further cost reduction due to tools for improved computational resources, performance latency and organizational resources

Reduced time to market: Rapidly go through exploration to insights, to commercialization using tools provided. Global footprint allows to build once and operate at scale

Opportunity costs: Invest to enhance your core business & capabilities, rather than in infrastructure and resources associated with Big-Data processing and location platform capabilities

Key differentiation and uniqueness of HERE Workspace

Access to freshest HERE data: Access not only HERE map content that is refreshed on a weekly cadence, but also additional dynamic HERE data

Global footprint: Build once and achieve global footprint with accessibility in more than 200 countries including China and Japan

Access to advanced toolsets: HERE provides access to advanced toolsets that enable processing, such as location-algorithms, libraries, SDK for processing and analytics

Customizable services: Access to HERE Location Services, with customization possibilities by combining with proprietary data

Enterprise grade: High performance levels (99.5% standard SLA uptime, 99.9% premium SLA uptime). 256-bit encryption with industry standard user-authentication (OAuth 2.0 authentication). ACL (Access Control List) for user provisioning and management

Secure: We follow industry and regulatory standards for data security, privacy and compliance; ISO 27001 certified and GDPR compliant; We are also SSAE SOC Type 2 (Service Organization Control) certified

Industry leading end-to-end support: Benefit from a free 90-day trial period, with full customer value-based enablement program. We also offer professional services and tiered customer support plan