

# The DataWalk Analytics Platform

Next-generation platform for intelligence-led decision making

## Key Benefits

### Get Answers 10X Faster

- All your data, connected in one place for search and analysis
- Fast response, even with billions of records
- Open system; no vendor lock-in
- Create analyses and reports anyone can run with the click of a mouse

### Better Results

- Produce repeatable results: instantly save and re-run analyses
- Make better decisions by analyzing ALL available data
- Identify high value entities via easy risk scoring
- Queries will never fail
- Military-grade security

### A Fraction Of The Price

- Software license price 70-80% lower than alternative Enterprise-class systems
- Minimal professional services required to deploy and operate
- No special hardware; use commodity servers

## The Problem

Organizations in law enforcement, intelligence, insurance, and other sectors often face challenges analyzing large volumes of data, across multiple data silos with different data structures and security permissions. Accessing, cleaning, normalizing, combining, and analyzing this data can be highly problematic, impacting the organization's ability to fulfill their mission or meet their objectives.

## The Solution

DataWalk is a commercial-grade Big Data software platform for connecting numerous large data sets into a single repository for fast visual analysis.

### Answers 10X Faster

DataWalk enables you to get answers up to 10X faster than traditional approaches, via the capabilities below.

### All Your Data In One Place

DataWalk integrates all your data from multiple sources into a universal model to deliver a big-picture view of all activities and connections, to support both tactical and strategic analyses. Data from internal database "silos", external databases,

subscription services, OSINT, and Excel/CSV files is easily combined, and with partner products you can also integrate data from social media and the darknet.

### Fast Response With Big Data

Patented DataWalk technology is architected specifically for environments with many sources and large volumes of data, even if the data is structured or described in different ways. DataWalk identifies and stores connections between the data sets to deliver fast interactive analysis, even for billions of records.

### Intuitive Visualizations

DataWalk is a platform for visual analysis, and does not require you to have expertise in SQL, programming, or a scripting language.

A core component of DataWalk is the Universe Viewer, which provides a visual representation of all your data. On the Universe Viewer you can easily structure and query your data through an intuitive visual interface. Unique to DataWalk, you can be assured that any query will run to completion!

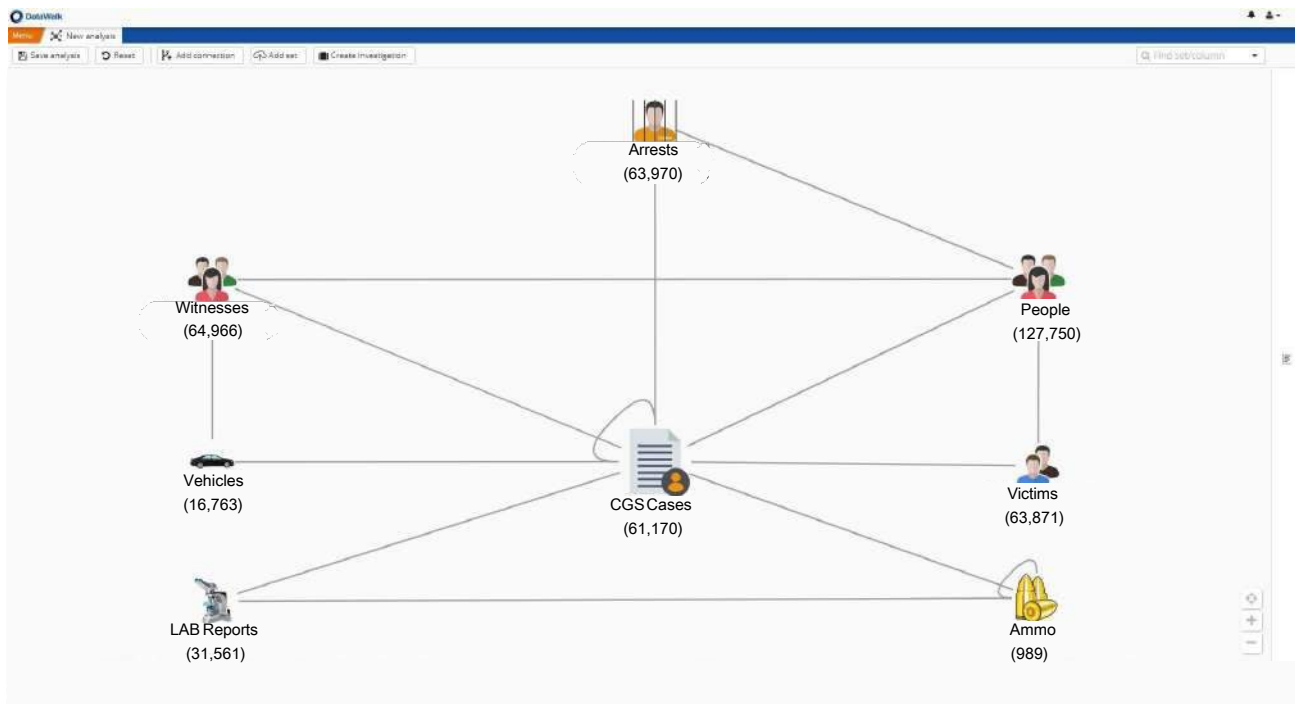


Fig. 1: The DataWalk Universe Viewer Provides A Highly Visual Analysis Environment

### Powerful Link Charts

DataWalk link charts enable you to identify hidden relationships and view large networks of interconnected objects to quickly spot patterns or anomalies.

DataWalk link charts also integrate with maps, support time-series analysis, visualization of flows, and include Social Network Analysis heuristics.

### Geospatial Analysis

DataWalk has embedded geospatial capabilities with various map providers. You can view heat maps, create and search polygons on maps, and link data based on geographical proximity, even with large amounts of data. You also can deploy a geocoding solution with or without internet access.

### Summaries

DataWalk includes a facility for customizable summaries, which instantly provide any desired information you would consistently like to see about a person, vehicle, claim, or anything else.

### Text Analysis

DataWalk provides a variety of capabilities to enable analysis of text content such as documents, emails, and social media excerpts. You can easily find words, phrases or patterns in text content, and you can utilize entity extraction to automatically identify and categorize key terms and objects.

### Insert Scripts Via The App Center

The DataWalk App Center enables insertion of scripts into the system for additional processing of data in DataWalk. Various scripts are available from DataWalk and third parties, for accessing Python/Java/R, new external data sources, data cleaning tools, entity resolution tools, and anything else. You can also generate and run your own scripts if desired.

### Ideal Infrastructure For Machine Learning

Get better results with Machine Learning by using real, up-to-date data, and by dramatically accelerating time to deploy to production.

### Get Results, Even With Dirty Data

With DataWalk you can use your data the way is. You can quickly profile your data, deduplicate content, and automatically perform on-the-fly transformations, all without requiring any action from data owners or IT.

### Workspace

You can easily create and save rules and analyses, and then re-run them in the DataWalk Workspace with the click of a mouse. You can build a library of domain knowledge, share analyses with other users, and deliver more consistent and more reliable results. In the Workspace you also can view alerts, manage cases, and retrieve saved link charts.

### Quickly Identify Clusters

DataWalk can scan your data and automatically identify clusters to find organized crime groups and other cluster patterns of interest.

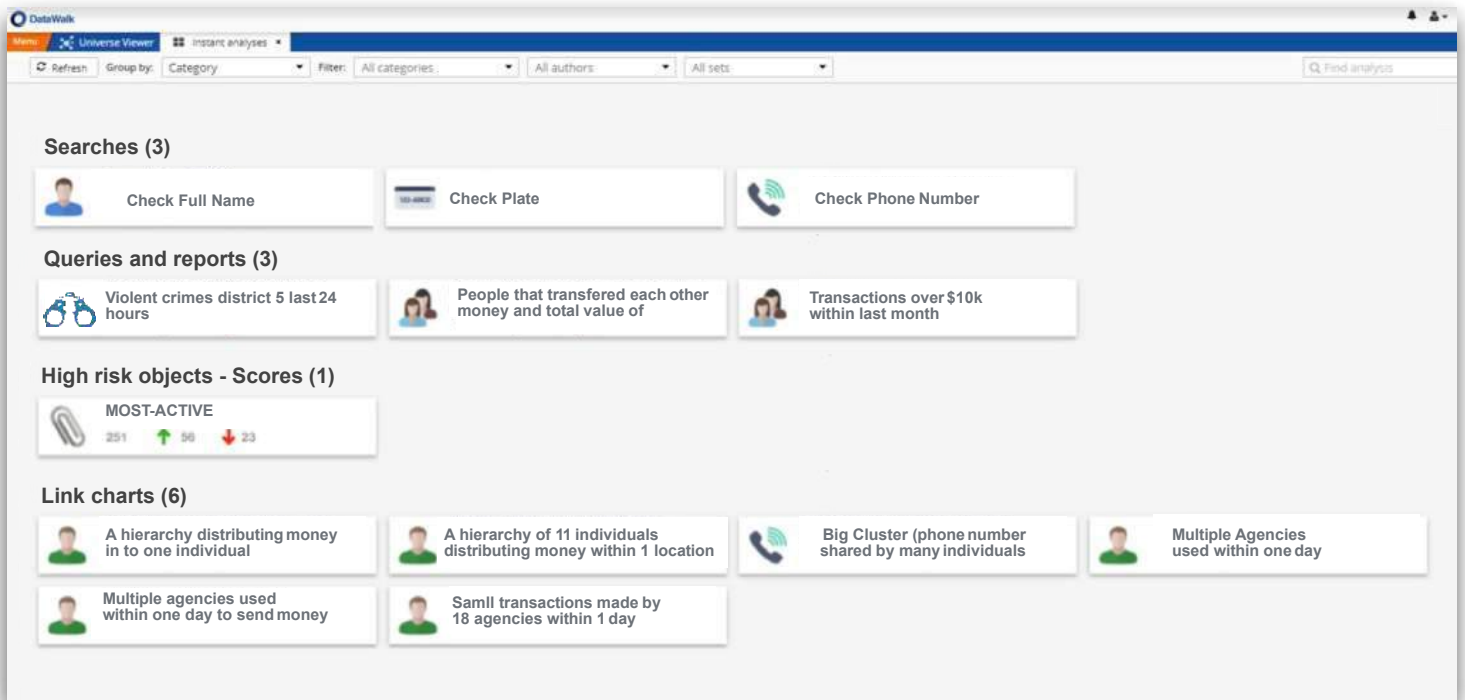


Fig 2. Easily run complex analyses via the DataWalk Workspace

## Reports

DataWalk also enables you to generate any desired reports via customizable templates.

### Rest Assured

The work you do is important, and you want to know that you've done all the right things to get the best possible answers. DataWalk helps ensure you deliver the best, most reliable, repeatable results.

## Repeatable Operations

Unlike many other systems, where operations must be re-created each time, DataWalk keeps track of all user operations and re-applies appropriate computations in the most optimal way when new data arrives or is modified. This helps to maximize consistency of information.

With DataWalk you can instantly re-run a saved analysis, enabling easily repeatable results.

## Use All Your Data To Make The Best Decisions

Traditional approaches often limit which data is available for you to analyze. In contrast, with DataWalk you can easily do analyses across ALL your data, enabling you to make better, more informed decisions.

## Easy Risk Scoring

You can quickly generate or modify scores, across any number of analyses or rules. You can score any objects (e.g., people, transactions, claims, etc.,) to effectively spot patterns across all your data.

## Military-Grade Security

DataWalk provides highly granular permissions where users only see the data for which they are authorized. If desired, permissions can be implemented down to the level of an individual cell.

To further address needs for data security, DataWalk can be deployed on-premise behind your firewall, and supports secure communication (SSL) between

your browser and the DataWalk application server.

## Easily, Securely Collaborate

DataWalk is built for collaboration. You can easily share data, analyses, and investigation files with authorized colleagues and agencies.

## Easy, Powerful Alerting

DataWalk offers a powerful alerting capability to monitor for user-defined conditions and value changes in the data. Alerts are easy to configure and data is constantly scanned to check against alert conditions. Alerts are managed in an alerts queue for easy review and follow-up.

## Get The Complete Picture With Folders

DataWalk Folders enable you to easily create and share folders that contain any and all information about a person, address, vehicle, claim, or anything else. Via Folders you can also easily create new data records if needed.

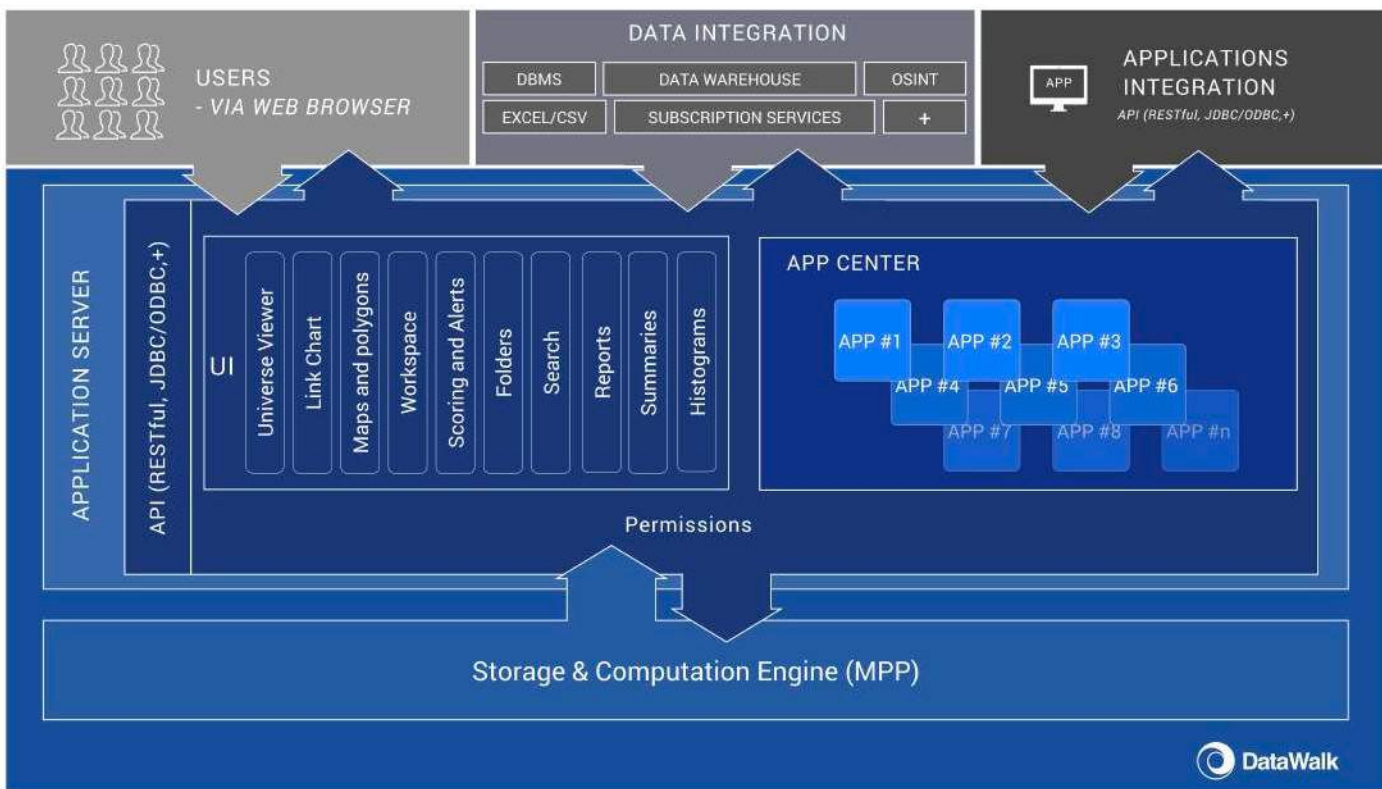


Figure 3: DataWalk System Diagram

### Data Lineage

DataWalk maintains lineage of all your data, and maintains a copy of all original data. You can trace data back to the source, and identify any transformations done along the way.

### A Fraction The Price

DataWalk is a fraction the price of alternative Enterprise-class systems, both at initial purchase, and over the lifetime of the solution.

### Minimal IT Support

Once deployed, DataWalk typically requires minimal IT support. Unlike alternative systems, administrative power-users can modify the analytic data structure on their own using simple graphical interfaces, without requiring professional services. You can easily import Excel files yourself, and take advantage of various other self-service capabilities.

### An "Off-The-Shelf" Scale-Out Platform

DataWalk is a Commercial Off-The-Shelf (COTS) software platform that runs on standard commodity servers, ensuring affordable economics.

If you need to expand your environment with more data or more users, then you can increase capacity simply by adding more servers to the pool.

### Fully Integrated Out-Of-The-Box Software Platform

DataWalk is a fully integrated analytics platform. So, unlike some alternative solutions, there's no need to cobble together multiple product components to have a complete system for data analysis. DataWalk comes complete with all specified analytics as well as the software to enable scalable data storage.

### No client-side software!

DataWalk is operated via a web browser. There are no client-side installs or plugins required, making DataWalk easier and more secure to deploy.

### Sample Applications

- Anti-Money Laundering
- Cell-dump analysis
- Coronavirus analysis and monitoring
- Cryptocurrency analysis
- Human trafficking
- Illegal immigration
- Internal/external fraud
- Insurance fraud
- Intelligence
- Lawful intercept
- Machine Learning Infrastructure
- Organized crime
- Process monitoring
- Process exploration
- Threat Intelligence
- Toll analysis