Isaac | TS

A whole Time-Series tools package platform for the Real Time monitoring and management of systems and sensors.

The most valuable insights, in Real Time

Isaac TS is the first complete Time Series platform built to allow the collection, management and analysis of structured and raw data coming from today's complex ecosystems.

The tools included in Isaac TS enable the smart organization of metrics and events in purpose-built Time Series models and allows developers to boost the creation of tools and applications through dedicated APIs.

Based on a micro-services architecture, Isaac TS offers in one single platform all the tools and services needed for the management of time-stamped data, allowing to monitor in Real Time containers, applications, IoT sensors, VMs, servers, users and much more. An end-to-end solution built to make smart the implementation of critical Time Series analysis on data coming from million of different sources.

Request now your Isaac-based POC:
www.isaacbigdata.com/request-your-poc

Data Ingestion

- API
- Dynamic Connectors

Data Management

- Data Modelling
- Aggregators
- API for Real Time Analytics
- Machine Learning Enviroments

Monitoring

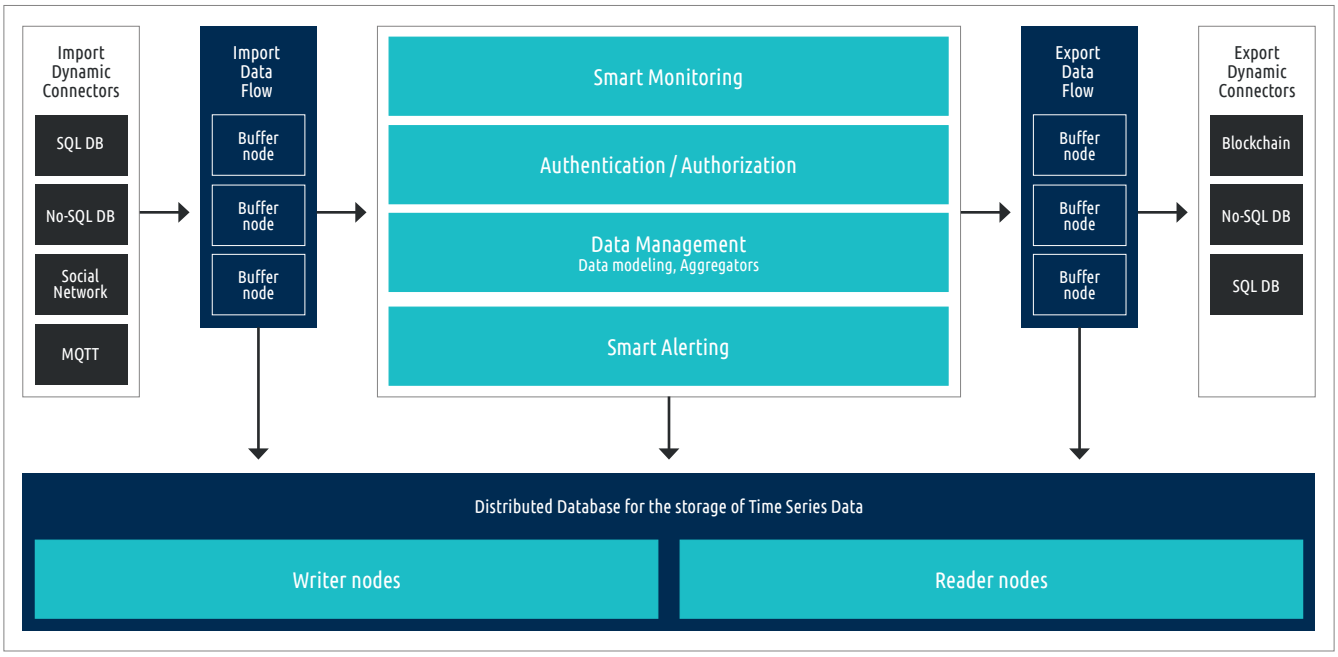
- Real Time Dashboard
- Smart Alerting

External Applications

- Mobile App Interface
- GIS Maps Services
- Business Intelligence
- Public & Private Blockchain

Platform Overview

Isaac TS offers a DB+services architecture, comprehensive of more than 10 dynamic connectors to external sources and devices. Create, organize, update your Time Series Data in the smartest way, and filter them by customized patterns and intervals.



Collection

Isaac TS allows the Real Time ingestion of structured and raw data coming from multiple and different sources, as well as the smart transfer of information into easy-to-build clusters, that the user will be able to monitor and organize depending on his needs.
Data safety is always granted thanks to the use of 2 different Data Centers (DcWrite/DCRead).

Analysis

Different pre-built Time Series models are available within the platform. Analysis operations include:
- custom series creation;
- SUM, MIN, MAX, AVG, COUNT operations on data belonging to multiple or single series, even over a time period with sorting;
- tags, time, series-name filtering options;
- roll-up tasks: creation, listing, cancellation, updating etc.

Connection

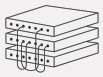
3 different types of dynamic connectors are included in the platform:
- **IoT connectors**: they interact with IoT systems to collect and store sensors and devices data;
- **file connectors**: import or export files containing Time Series Data in different formats, such as Excel, CSV, or PDF;
- **database connectors**: they allow data import and export from and to external SQL and NoSQL databases.

Isaac TS Technologies

cassandra kafka Spark spring docker Grafana

Isaac TS features

Dedicated Data Centers
Isaac TS has two Data Centers: one optimized for data writing, one for data reading. This subdivision means better operating speed and performances.



Real Time Management of Data
Isaac TS allows to perform analysis and get insights in Real Time, thanks to the use of a temporary storage buffer of incoming data.

Visual Monitoring
Isaac TS provides its users with an interactive dashboard for data and infrastructure monitoring: the graphs provide a complete and intuitive overview of the status of the platform.

Smart Modelling
Isaac TS includes predefined templates to easily organize Time Series Data for numerical data (IoT sensors), metrics (system logs) and geographic coordinates (vehicle travel data).

Fast and Relevant Analysis
With Isaac TS, you can perform aggregation and Roll Up operations, which are useful to reduce query writing times and quickly get complete analysis for detecting anomalies and trends across millions of data.

Dynamic Connectors
Along with the entire infrastructure, Isaac TS provides dynamic connectors to import and export data from and to external sources, such as IoT devices, other databases, files and blockchain platforms.

Deadline Settings
It is possible to choose the moment when Isaac TS will cancel all the time series no longer relevant to your business, by manually setting the TTL (TimeToLive) of data.

Automatic Translation
Isaac TS provides the user with a smart interface for easy query writing, without the need to know the CQL language

Blockchain Certification
Isaac TS provides the user with export connectors to public and private blockchains. Individual transactions are associated with unique IDs, allowing the user to export them and ensuring their immutability on blockchain platforms.

Multi Tenant Architecture
Isaac TS allows, within a single instance, the management and configuration of different customers (Tenants), each of which can view and organize its users and their own clusters.

How Isaac TS can help: use cases

Full monitoring of IoT ecosystems

Isaac TS allows to manage in one single place all data coming from sensors and IoT ecosystems, that need to be processed in Real Time. Resiliency and scalability are always granted, no matter the number of sources or workloads complexity. Traditional databases and data solutions are not suitable for the collection and management of IoT/time-stamped data. Isaac TS is then the perfect solution for IoT environments, where Real Time action is necessary.

Empowerment of Machine learning and Artificial Intelligence solutions

More data means more accuracy when it comes to prediction. Isaac TS allows to better collect and manage massive volumes of data coming from sensors and implement more precise prediction models. The high degree of accuracy allows to build more performant deep learning-based applications and solutions.

Real Time control of applications and technical infrastructures

Isaac TS offers all the necessary tools to safely monitor servers, applications and systems, instantly detecting problems and malfunctions. This allows to solve any problem before it can heavily involve your business processes. Delivery of insights in seconds, not minutes: also, the user can decide to automate upgrades, processes and set thresholds for alerts processing.

Business-critical management of location information

Time is fundamental, as well as geo-spatial information. The combination of these two variables leads to even more precious insights to obtain better performances and drastically reduce costs. Just think about a fleet of vehicles: with Isaac TS, it is possible to collect speed information, control CO2 emissions, detectGPS position and more, in Real Time.

Isaac | TS

Sogetel

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Providing our expertise and know-how in the creation of distrubuted architectures at scale. Committed in empowering developers for the smart building of innovative applications. Helping customers getting Real Time, accurate insights, easily and without having to write extensive lines of code. Automated and robust data management systems: database, analytics, streaming and extra services included.
Ensuring speed-to-action for the building end implementation of vertical solutions in the automotive, telco, finance, manufacturing, insurance, pharma industries.
headquartered in Rome, Italy.