



# Thentia Cloud Delivers Self-Service BI and Analytics to 9M+ Licensees across 100+ Regulatory Agencies with SingleStore

## 100+

regulatory agency customers using the platform

## 2-3X

## Performance

without 2-3X the cost thanks to SingleStore

## 9+ Million

Thentia licensees

“ We needed something that was super fast and scalable, from both performance and price perspectives. As we double and triple our size, we don't want to be paying double and triple the cost. SingleStore checked all the boxes. ”



**Julian Cardarelli**  
Chief Executive Officer,  
Thentia Cloud

Founded in 2014, **Thentia** offers an industry-leading govtech SaaS platform built for regulators by former regulators. Serving self-regulated and government entities globally, the company, led by Chief Executive Officer **Julian Cardarelli**, is transforming the way regulatory bodies manage their licensing processes with best-in-class cloud technology. Thentia's platform is a turnkey enterprise solution designed exclusively for regulators spanning occupational and non-occupational licensing.

### Challenges/Goals

Thentia Cloud's goal is to deliver limitless configurations and integrations, centralized data, and extensive insights to its regulatory agency customers in the cloud, including:

- Online self-service for licensing, permitting, and certification supporting scenarios such as professionals applying for, renewing, or paying for their licenses
- Public access to search information about licensees
- Follow-up investigations on public complaints about licensees

Thentia Cloud had previously offered a robust platform for regulatory agencies, but customers wanted more. Customers often requested reporting capabilities, but business intelligence (BI) was not available in its existing platform. Thentia Cloud needed to embed reporting that was effective and cost-efficient, and that customers could readily access so they could easily run queries against an analytical data store.

Thentia Cloud had been using MongoDB as its transactional database and leveraging its open source frameworks for the rest of its platform. While MongoDB functioned well as the online transaction processing (OLTP) database, it was unable to support the online analytical processing (OLAP) Thentia Cloud needed to add the BI and reporting functionality its customers demanded.



## Technology Requirements

The solution had to enable encryption at-rest and in-transit, role-based security, and provide the security infrastructure of a robust analytics data store.

“The right solution needed to be easily deployed within our ecosystem, so it had to support google Cloud and integration with the other technologies we have, and it also needed to be secure,” said Chris Woodill, Vice President, Solution Engineering, Thentia Cloud. )

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Chris Woodill  
Vice President, Solution  
Engineering, Thentia Cloud

The ideal solution also had to offer licensing that would allow it to be seamlessly integrated into Thentia Cloud’s existing SaaS solution

## Why SingleStore

“The biggest thing customers were asking us for constantly was reports,” said Woodill. “We needed a way to have reporting that’s cost-efficient and effective, and can be exposed to those customers in such a way that they can easily run queries against our analytics data store. That’s where SingleStore fits into the picture.”

As Thentia Cloud began evaluating OLAP solutions for its platform it discovered SingleStore, a cloud-native data platform designed for today’s most demanding applications and analytical systems. It offers many compelling features that made it the ideal choice to power Thentia Cloud Cloud’s highly-secure, massively scalable, fast analytics use case, such as:

- Accelerated time-to-insight through fast ingest, high concurrency, and low latency
- The ability to unify diverse data sources and pipelines
- Integration support for a wide range of data types and technologies to minimize data movement
- The ability to sync data in near real time from MongoDB to SingleStore via ETL
- Effortless scaling of applications and data sources with a tiered storage model that offers cloud elasticity and infinite scalability
- Enabling Thentia Cloud customers to meet many security and data privacy regulations including the California Consumer Privacy Act (CCPA), General Data Protection Regulation (GDPR), Service Organization Control (SOC 2), and Health Insurance Portability and Accountability Act (HIPAA) compliance regulations

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## Solution

Thentia Cloud self-manages its databases to optimize security. Thentia Cloud opted to keep MongoDB as the transactional database, so it translates NoSQL into a proper SQL database for analytics and BI. Thentia Cloud deployed [SingleStoreDB Self-Managed](#) in a private cloud and virtual machine (VM) infrastructure that operates similarly to the company's SaaS platform, [SingleStoreDB Cloud](#). All data feeds through the transactional database to be cleansed, transacted, and integrated into the master, then flows in SingleStore, which acts as the analytics layer on top of Thentia Cloud's existing infrastructure:

- **Dual SingleStore clusters offer high availability (HA) across three zones in self-managed Google Cloud instances**
- **The production cluster has 18 development nodes; each node has eight virtual CPUs and 32 gigabytes (GB) of memory**
- **The non-production cluster has 24 nodes**

Thentia Cloud offers one core application, but every one of Thentia Cloud's 100+ customers gets its own analytics repository and transactional database, running within a multi-cloud environment. All data Thentia Cloud collects across its customers is replicated into an analytics repository that sits in SingleStore. The platform has product-based BI tools that use this data as an analytics data warehouse or data repository, and queries run based on customers' reporting needs. In most cases, the requests are run as daily cron jobs.

Each of those 100+ Thentia Cloud customers can have 10 to 100 different admin users and employees who have access to the system through the platform portal. All of them can run reports against the repository in SingleStore. Most reports are employee-facing and are used to optimize and operationalize the business. The Thentia Cloud platform's BI tools are custom-built as part of the product, and it also has custom-built product portals for the user interface.

“The SingleStore database has been quite stable. It runs the way we expect it to,” said Woodill.



## Outcomes

The team at Thentia Cloud has implemented SingleStore to deliver robust self-service reporting on an ultra-fast and highly secure SaaS platform in order to meet customer demand and support its future growth. As the platform scales, the price remains cost-efficient due to SingleStore's stair-step pricing model.

### Delivering Real-Time Customer Experiences with Self-Service BI Capabilities

After Thentia Cloud implemented SingleStoreDB for its analytics data store, it was finally able to fulfill customer requests for reporting. Now, agency customers can optimize and operationalize their businesses with faster time-to-insight.

"We sync in near real time between our transactional database and our analytics platform, so in that sense it's pretty close to real-time. However, most transactions are coming in throughout the day, rather than coming in a real-time event stream," said Woodill.

**"With SingleStore, we sync in near real time between our transactional database and our analytics platform, so data ingest and access are pretty close to real-time."** — Chris Woodill,

Vice President, Solution Engineering, Thentia Cloud

### Doubling or Tripling its Business — without 2-3X the Cost

With many database solutions, companies pay per user or per instance, which creates problems with massively scaling costs as SaaS platforms rapidly grow. With SingleStore, pricing is based on a different model that uses a stair-step approach, linked to GB and CPU utilization.

In Thentia Cloud's case, it has a large number of customers who are each low-intensity data users, so adding another 100 customers is easy with a fairly flat price. A lot of customers can be packed into a small pricing footprint with SingleStore.

### Meeting the Stringent Security Requirements of Regulatory Customers

SingleStore enables Thentia Cloud to protect data at-rest and in-transit in a data platform that has achieved many industry-leading security certifications, including ISO/IEC 27001, SOC 2 Type 2, Privacy Shield, HIPAA, CCPA, and GDPR, among others.



### Supporting 100+ Regulatory Agencies Worldwide and Poised for Future Expansion

Thentia Cloud currently reaches more than nine million managed licensees, and Thentia Cloud is positioned for future growth. "As we add more data into the picture from new customers, we're anticipating that SingleStore will grow with us," Woodill concluded.

See Thentia Cloud featured in [this news release](#), SingleStore Empowers Digital Innovators with Superior Database Performance and Real-Time Insights at Lower TCO

See Thentia Cloud featured in [this announcement](#), SingleStore Powers the Rapid Rise of Thentia Regulatory Technology



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