

# Top Five Challenges with Modern Data Management



## 1. Performance 35%



2. Lack of security, governance, and control

20%



3. Poor data quality

19%



4. Inability to incorporate desired data sources

18%



5. High OpEx costs

18%

Data drives both transactional and analytical business processes. Data management technologies must provide a strong foundation for analytics, and must be easily deployed, cost efficient, scalable, and most of all, high performing. ESG validated that the robust data management capabilities and performance of the InterSystems IRIS Data Platform enable organizations to transform real-time data into faster, better business decisions.



## Validating the Performance of InterSystems IRIS Data Platform

Testing focused on analytical query performance of InterSystems IRIS compared with several other databases commonly used in the financial industry, leveraging thousands of financial instruments.

Five queries were tested across each vendor with results sets containing between 19 and 6,504 rows, and each row containing hundreds of fields. Response times were measured as each query was executed against an increasing number of concurrent users: 1, 10, 25, 50, and 100.

## Comparing Test Configurations

The InterSystems IRIS configuration used less compute infrastructure (VMs, cores, and RAM), while running queries against significantly more data than the competitors (measured in days, GBs, and rows).

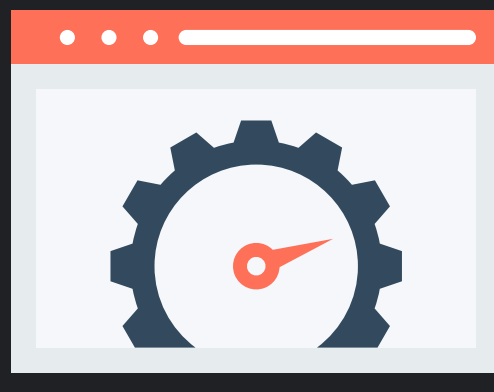
DATABASE	CONFIGURATION	DAYS OF DATA	DATA SET SIZE GB/ROWS
InterSystems IRIS	4 VMs: 8 cores, 96GB RAM, 400GB local storage	135	320GB / 200,000,000
Vendor A	8 VMs: 16 cores, 256GB RAM, 400GB local storage	14	33GB / 20,740,000
Vendor B	8 VMs: 16 cores, 256GB RAM, 400GB local storage	14	33GB / 20,740,000
Vendor C	3 dedicated physical servers, each with 24 cores, 256GB RAM, 2TB shared SAN storage	20	47GB / 29,620,000

## The InterSystems IRIS Advantage

### THE QUERY PERFORMANCE:



Consistently faster



Predictably scaled



Always completed

### WITH 50 CONCURRENT USERS:

Up to **454x** faster for queries returning 19 rows.

Up to **220x** faster for queries returning 201 rows.

Up to **85x** faster for queries returning 600 rows.

Up to **34x** faster for queries returning 984 rows.

For a detailed description of the tested configurations, query types, and complete results across all concurrency levels, [read the ESG Technical Review](#).

## The Bigger Truth

ESG validated the performance of InterSystems IRIS against several common database solutions, and the results demonstrated that InterSystems IRIS provided faster performance leveraging more data and using less infrastructure. This means organizations can gain better insight, faster, for less money. With more in-depth insight, organizations can increase revenue, improve customer experiences, create tailored products and services, improve compliance, reduce risk, make operations more efficient, and reduce costs.

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