

# Action Ingres

A Proven Solution for Mission-Critical OLTP and Analytics

Action Ingres has long been known as an ultra-reliable enterprise transactional database, managing some of the world's most mission-critical data for decades. Today's Action Ingres is a hybrid transactional/analytical processing database with record-breaking performance.<sup>2</sup> Its architecture supports row-based and columnar storage formats. This combination empowers organizations to perform transaction processing and operational analytics easily and efficiently within a single database.

## Empowering Your Growth, Seamlessly Scalable

Designed to scale both vertically and horizontally to accommodate growing data volumes and user loads, Action Ingres meets the needs of large enterprises. Features such as data sharding, replication, and clustering can distribute data and workload across multiple nodes or servers, thereby ensuring scalability and fault tolerance.

## Exceptional Performance and Workload Automation

Action Ingres delivers exceptional performance through parallel query processing and intelligent workload management, ensuring optimal resource utilization and fast response times even with complex and concurrent queries. This allows organizations to efficiently handle demanding workloads and deliver a seamless experience to their users.

A powerful workload manager optimizes data performance by dynamically adjusting resource allocation based on priority and demand. In this way, resources for critical tasks are efficiently utilized, even during peak usage periods.

### Highlighted Features and Benefits



- Full ACID compliance to maintain data integrity and reliability
- Multi-Version Concurrency Control (MVCC) allows multiple users to access and modify data simultaneously
- Distributed Database Support presents a unified view of data across multiple locations or servers
- Comprehensive monitoring tools keep you informed on database performance
- Supports for semi-structured and unstructured data types allows you to leverage a wider variety of data for analysis and decision-making
- Extensive geospatial data types and functions enable spatial analysis and visualization

*"We simply cannot afford to be off the air, and Action Ingres helps ensure that we're not. It is a scalable and performant database engine."*

**John Barron**

Chief Information Officer, Office of the Revenue Commissioners, Republic of Ireland

## The Actian Ingres X100 Analytics Engine

Actian Ingres' analytic processing capabilities enable business decision-makers to quickly identify trends, patterns, and anomalies in near real-time. The analytics engine requires minimal tuning. It does not require special data models, indexing, constraints, materialized views, pre-aggregated cubes, compression configuration, complex block size configuration, or complex table structures. Combined with query optimization, the X100 analytics engine leverages x86 vector processing, per-query parallelism, and in-cache decompression for significant performance gains in analytical workloads, as shown in Figure 1. The result is incredibly fast and efficient reporting with complex query execution in just seconds.

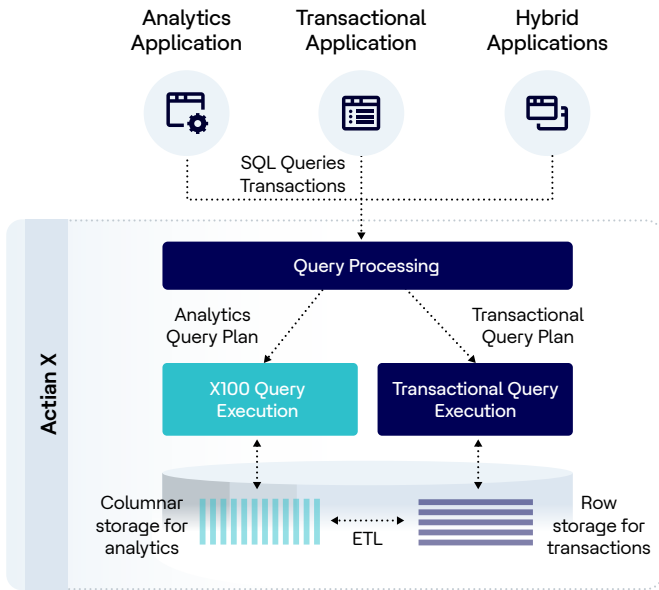


Figure 1. Hybrid Transactional/Analytics Processing

A recent GigaOm TCP-H Benchmark Test reveals that the X100 engine is 9x faster than alternate solutions (see Figure 2).

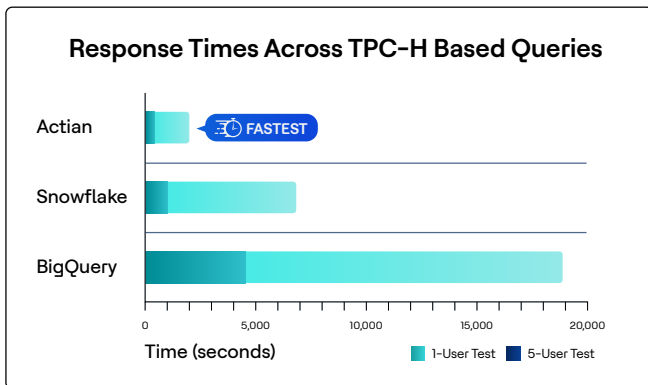


Figure 2. X100 is 9x Faster Than Alternate Solutions

## Strong Security and Compliance

Actian Ingres offers trusted security and compliance features to ensure secure access to systems and protect sensitive information. These include user access controls, dynamic data masking, column-level encryption, and security auditing.

## Data protection, High Availability, and Disaster Recovery

Actian Ingres equips organizations with a robust suite of tools to safeguard their critical data assets. By combining traditional backup/restore mechanisms with advanced technologies like IngresSync replication and containerized deployment for disaster recovery, Actian Ingres ensures business continuity, minimizes downtime, and provides flexible recovery options to meet diverse needs.

### Highlighted Features and Benefits



- Reliable backup and recovery to minimize disruptions and data loss.
- Flexible cloud backup with integrations for AWS, Microsoft Azure, and Google Cloud Platform.
- High availability and near real-time data replication with IngresSync
- Streamline disaster recovery efforts using Docker and Kubernetes

## On-Premises and Cloud Flexibility

Actian continues to develop and fully support Ingres on-premises and in the cloud, with options for virtual machine (VM) or containerized deployments using Docker and Kubernetes. This level of orchestration simplifies deployment and provides a high degree of portability between public and private cloud environments.

### Highlighted Features and Benefits



- Flexible deployment on-premises and the cloud
- Deploy on Amazon Web Services (AWS), Google Cloud, and Microsoft Azure

## About Actian

Actian makes data easy. We deliver cloud, hybrid cloud, and on-premises data solutions that simplify how people connect, manage, and analyze data. We transform business by enabling customers to make confident, data-driven decisions that accelerate their organization's growth. Our data platform integrates seamlessly, performs reliably, and delivers at industry-leading speeds. Learn more about Actian, a division of HCLSoftware: [www.actian.com](http://www.actian.com).

