

Real-Time Decision-Making

In times of market uncertainty, you need real-time operational insights to reduce cost, manage risk, and deliver business agility

Benefits

Accelerate Cost Savings

- Seize near-term cost reductions across your IT and business operations
- Leverage existing IT investments and data sources

Optimize Risk Mitigation

- Identify risks at the speed of the crisis
- Assess risks based on the freshest, most comprehensive set of data

Amplify Business Agility

- Iteratively adjust operations based on real-time operational data ingestion
- Provide concurrent access to data regardless of source or location
- Model and visualize tailored to any role at departmental level or Enterprise-wide

Sharpen Customer Focus

- Understand changing customer needs and behaviors to better segment offers
- Rapidly adjust product and service mix, pricing, and marketing

Are you ready? 451 Research conducted a March 2020 survey of over 800 IT executives and found that “more than half of enterprises expect to experience a major disruption to their business (such as inability to repay debt or deliver services, or the loss of a major client) within six months.” They concluded that “in today’s data-driven economy, it will be those companies that make the best use of analytics to drive transformation efforts that will outlast the coronavirus crisis.”

Of course, COVID-19 is the primary driver behind today’s economic forecasts and market disruptions, but severe weather, earthquakes, political instability, wars, trade disputes, and future epidemics will create other market disruptions. Additionally, at the individual business level, mergers and acquisitions, strikes, and unexpected yet sizable regulatory changes can create similar disruptions.

During periods of market and business uncertainties, the underlying applications and data repositories supporting business operations are still needed, but the operations they underpin must be sped up and or adjusted. Likewise, the data extracted from operations for feedback control loops, KPIs, visualization, and reporting must also be accelerated and tuned. Lastly, market disruptions tend to create their own datasets; stakeholders and participants; and departmental, B2B, B2C, and other linkages necessary to deliver decisions at the speed of business.

Introducing Real-Time Decision-Making Strategic Capabilities

Making the right decisions during periods of business disruption requires Real-Time Decision-Making (RTDM) strategic capabilities. These drive agile use of your operational systems and data with clear, prescriptive and actionable guidance based on comprehensive, fresh data of the highest quality possible. In this context, real-time is defined by the overall time and situational awareness constraints demanded from your operational responses. These constraints will be different during periods of duress, and your business-as-usual platforms and process will not be up to the task.

The quickest route to building out RTDM strategic capabilities dictates use of a cloud data warehouse as the starting point. However, cloud is not a panacea, as integration with and ingestion of data from legacy and operational platforms will be one of the key roadblocks. Some of the data from these systems may already be flowing into your enterprise data warehouse but, during a crisis, adding additional data sources to your EDW can be more costly and disruptive than simply offloading from or bypassing it altogether.

You will need a platform that can get data from all relevant sources—internal and external, legacy on-premise and native cloud, from business partners, customers, and even government or other external sources. As shown in the figure below, the Actian Avalanche Real-Time Connected Data Warehouse is the RTDM Strategic Capabilities centerpiece (representative examples are also provided in the figure).

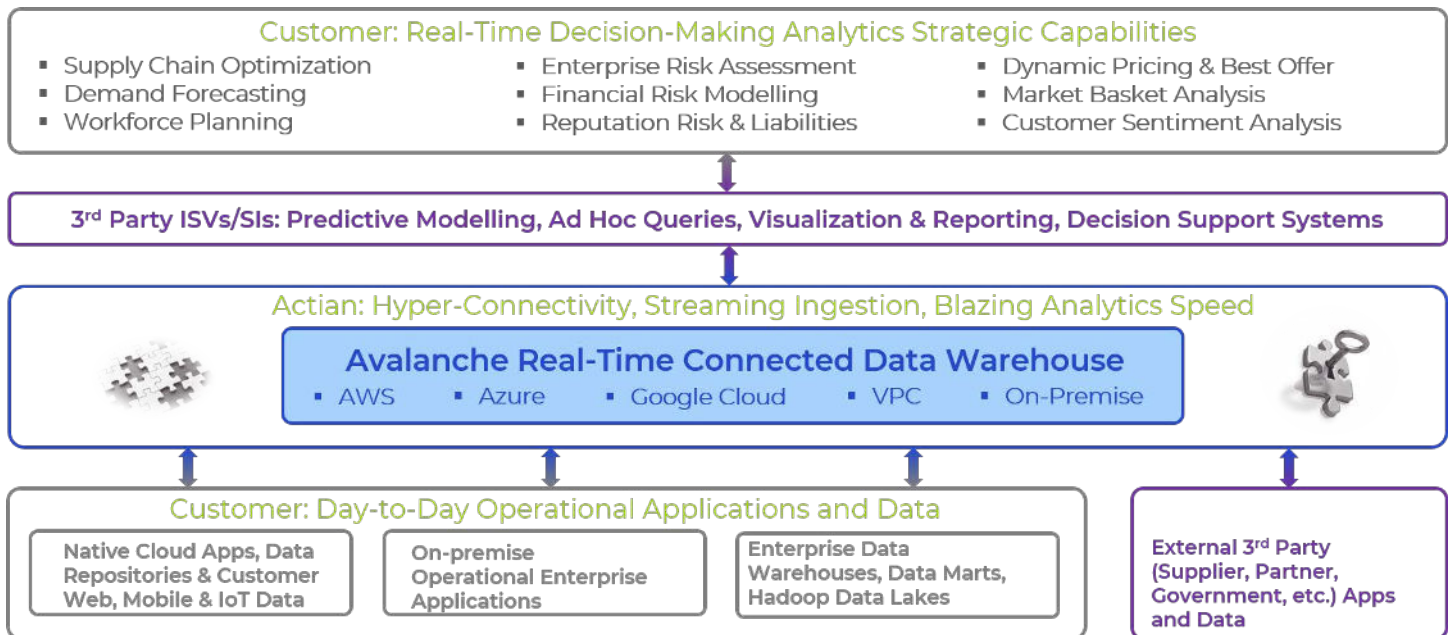


Figure 1. Accelerating and Amplifying Real-Time Decision-Making Strategic Capabilities

With the Avalanche Real-Time Connected Data Warehouse, the key differences delivered that ensure RTDM for periods of disruption over business-as-usual normal operations are as follows:

- **Pragmatically Stand Up RTDM Strategic Capabilities on Any Available Resource:** The Actian Avalanche Real-Time Connected Data Warehouse can be stood up on existing commodity hardware running Windows, Linux, or Virtual Machines if there are existing underutilized on-premise systems, or on AWS or Azure, managed by Actian as a service as CAPEX or OPEX budgetary options, or an all-of-the-above combination in a single Data Warehouse.
- **Ingest Data Quickly and Easily from Internal and External Sources:** The Actian Avalanche Real-Time Connected Data Warehouse includes integrated connectors and templates for over 200 off-the-shelf sources so that you can rapidly and securely access diverse datasets from your on-premise and native cloud apps, data warehouses, data lakes, and data marts as well as third-party applications and data sources.
- **Make the Fastest Decisions on the Freshest Data:** The Actian Avalanche Real-Time Connected Data Warehouse delivers up to 20X more throughput compared to other popular cloud data warehouses and can ingest streaming data with Spark and Kafka support for high-speed social media, mobile, and IoT data streams.
- **Cost-effectively and Seamlessly Scale-up Data, Concurrent Use, and Different Roles:** The Actian Avalanche Real-Time Connected Data Warehouse scales concurrent users and data warehouse size smoothly across additional compute resources both on-premise and in the cloud. It accommodates Analysts, Line of Business End-Users, and Data Scientists performing set BI reports, ad hoc queries, and data science modelling with visualization and reporting in popular tools including Looker, MicroStrategy, Qlik, and Tableau.

RTDM Adds Missing Puzzle Pieces to Your Strategic Capabilities

Whether it's changes to demand planning, identifying and qualifying new suppliers, adjusting from cross docking to rerouting shipments to distribution centers, changing retail merchandise composition and quantities—whatever the RTDM Strategic Capability that's required—there are often new datasets from sources currently not part of your existing business process.

The risk, cost, and timelines for adding these new sources to your existing process can be prohibitive as they often mean working through organizational structures and IT budgets that may be more rigid. For example, IT budgets may be frozen during periods of business uncertainty and available funds are limited. Under these circumstances, starting with a public cloud-based data warehouse or on underutilized hardware within your organization as a modest and transparent incremental cost is the only feasible option. Further, cost are only part of the problem as time is against you; integration with existing systems and data repositories must be included in the pricing with little time or funds for systems integration.

RTDM Avoids Business-as-Usual Organizational Silos and Timelines

While IT budget freezes and day-to-day business process and organizational structures are a major part of the problem, analytic models and the underlying data fusion and analysis for normal business operations are tightly bound to specific departmental organizations and tend to be insufficiently agile in times of crisis. Every organization: HR, Finance, IT, Legal, each Line of Business operation, and so forth, has their own ERP, vertical applications, and associated data repositories in support of their departmental charter. Of course, normal business process developed over time requires cross-departmental data collection, analysis and visualization, but all with respect to specific reporting requirements for normal day-to-day business, designed, integrated and deployed over years.

In times of market uncertainties and business disruptions, the challenges facing businesses shown in Figure 2 require decisions to be made and operations to be executed by more than one organization often in collaboration with new organizations. This is true even where the collaboration exists within an existing business process with derivations and speed requirements that are in flux due to the uncertainty inherent in the market disruption.

Optimizing for Speed, Accuracy, and Cost

Actian Avalanche delivers superior price-performance cloud data warehouse on the market as compared to alternative solutions in the market today. It runs on commodity hardware with patented technology to extract the most performance possible in the cloud or on-premise. Additionally, as a Real-Time Connected Data Warehouse it offers over 200 pre-built, extensible connectors and templates to popular SaaS and on-premise applications so that you can bypass the intricate ETL process and quickly move data into Avalanche. It uses a proven integration technology that provides data cleansing, data enrichment, deduplication, and other transformations beyond just data ingestion. Finally, it bundles in streaming data capabilities based on Spark and Kafka standards to ensure real-time ingestion is paired with real-time analytics performance.



Figure 2. Key Areas of Business Headwinds Addressed During Periods of Market Uncertainty

Accelerate and Amplify Your RTDM Strategic Capabilities

Actian's solution can be deployed on-premise as well as on AWS and Microsoft Azure. Since it operates seamlessly in a hybrid multi-cloud environment with on-premise data, all deployments are compatible so you don't have to relearn the technology—just integrate additional data sources and alter your query workloads and modelling to address the specific challenges faced during the period of market uncertainty and business disruption.

If you need to move to the cloud quickly but prefer to keep some data sets on-premise due to compliance requirements or other business restrictions, Actian's hybrid technology ensures minimal disruption to your business. Its intelligent federated query feature enables a single query to be executed across geographically dispersed datasets without expensive data movement, enabling you to make new linkage, data fusion, and analysis across data stores and communities.

In times of crisis, funds are scarce, time is precious, and running pilots and proofs of concept are out of the question. You need to accelerate and amplify your operational responses based on proven technology that pragmatically leverages cloud platforms and your existing IT systems. We are here to help you survive and thrive during these unprecedented times. Go to Actian.com to learn more today.