# Senior Director, Data Architecture & Engineering

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| **Requisition** | R0000191160 |
| **Employer** | Royal Bank of Canada |
| **Canadian locations** | Toronto (Ontario, Canada) |
| **Primary address** | 600 QUEENS PLATE DR, TORONTO, ON M9W 0A4, Canada |
| **Posted** | November 4, 2026 |
| **Date in the description** | October 27, 2026 |
| **Posted deadline** | November 30, 2026 |
| **Last day to apply** | November 29, 2026 |
| **Business area** | TECHNOLOGY AND OPERATIONS |
| **Employment status** | Regular |
| **Work schedule** | Full time · 37.5 h per week |
| **Pay type** | Salaried |

## The position

The Senior Director, Data Architecture simplifies and unifies RBC's data architecture across the full lifecycle: manufacturing, distribution, discovery, consumption and governance. They own the target data architecture and the standards that make data machine-readable for AI agents and operate the architecture function with agents as a core part of how it works. Success means fewer data stores and point-to-point feeds, one trusted source for each critical data element, and data products agents can find and use within their entitlements.

## Key pillars of this role

- Agent-assisted architecture operations: Continuously inventory RBC battery platforms and data stores. Deploy automated architecture review and agent-driven decision-making processes to improve governance and documentation
- Agent governance and trust: Establish audit trails of agent data access tied to entitlements. Implement evals to validate whether agents can answer correctly from data products. Define human-in-the-loop thresholds and ensure agents meet regulatory expectations for auditability and transparency

## Responsibilities

- Manufacturing (data sources): Name the authoritative source for every critical data element. Own the canonical data model and business glossary alignment. Set the standard for producer data contracts covering schema, semantics, quality rules and SLAs, so quality is fixed at the source. Establish feedback loops where agent usage and failures feedback to producers-if agents can't interpret a field, that becomes a defect against the source.
- Distribution (data platform architecture): Contribute to the architecture of the data distribution platform and standard ingestion models: batch, streaming, CDC, events and API. Move the data once, reliably and traceable.
- Agent-assisted architecture operations: Run continuous inventory of data platforms and stores across RBC's stacks. Deploy automated architecture review and decision record workflows powered by agents. Enable agents to help with architecture assessment, governance documentation, and exception tracking at scale.
- Machine discovery and readability: Define what counts as a data product and the minimum metadata that each must contain: meaning, ownership, lineage, quality and rights. Build the semantic layer and ontology that allow agents to interpret the data, not just locate it. Define the agent access model for data products, such as the MCP. Include unstructured data (documents, emails, call transcripts) with appropriate compression, integration and freshness strategies, so that the workflows increased by recovery have a high quality context.

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- Consumption: Define consumption archetypes (BI, operational API, analysis and ML, RAG, agents) with a supported model for each. Power supply, rights-conservation data products in the common RAG substrate.
- Agent governance and trust: Design and implement evals for data products to validate whether agents can answer correctly from them. Establish audit trails of agent data access tied to entitlements. Define human-in-the-loop thresholds and escalation patterns. Align with model-risk governance frameworks (OSFI E-23) to ensure agents operating on data products meet regulatory expectations for transparency and auditability.
- Governance by Design: Act as the design authority through architecture review, decision files and exceptions. Associated with the CDO, which is responsible for policy and accountability, while this role is the owner of how standards are integrated.
- Data quality for retrieval: Establish quality standards and practices specific to retrieval scenarios: chunking strategies, freshness SLAs, embedding quality, and unstructured data preparation (documents, emails, call transcripts). Ensure that data products used in RAG and agent workflows meet standards for accuracy and interpretability.
- Simplification and transformation: Inventory data platforms, stores and tools across RBC's stacks and give each a disposition: tolerate, invest, migrate or eliminate. Tie the roadmap to in-flight programs such as Finance Modernization and AML Transformation, and to third-party rationalization. Track and communicate measurable outcomes: machine-readability coverage (% of critical data elements with semantics, owner, lineage and entitlements), agent task success rates on data products, and time-to-onboard new data products.
- Build/buy stance on the agent layer: Establish strategy and standards for agent infrastructure: gateway and routing, tool registry for data product access, and shared context or memory layers. Make principled decisions on build versus buy for agent-specific data infrastructure.

## Qualifications

- 15 years and over in data architecture or data engineering, including 5 years and more leading architects at the company level.
- Depth on the platforms of the lake house and warehouse, streaming and CDC, data products and mesh, catalogs and metadata, semantic layers and knowledge graphics.
- Measurable simplification and modernization experience: streamlining data flows, reducing costs, improving the coverage of machine readability and improving the success rates of agent tasks on data products.
- Working knowledge of regulatory frameworks including BCBS 239, privacy regulation, OSFI E-23 (model risk) and OSFI expectations for data risk.
- A clear view of the preparation of data for AI for recovery, rights propagation, agent access and informal data flows.
- Experience in designing and implementing data product governance, metadata standards and data architectures accessible to agents.
- Able to align the CDO, platform engineering, business data owners and AI/ML leadership without direct authority over them.

## Pay and benefits

RBC teams aim to grow by working together, thinking ahead and giving dependable advice that helps clients and communities prosper. They support one another, develop their potential and strive for outcomes that benefit the communities they serve as well as the bank.

- A total compensation program with competitive pay, bonuses and flexible benefits, plus commissions and stock where applicable.
- Managers who coach employees and help them find opportunities to develop.
- Capacity to make a difference and sustainable impact
- Join a collaborative team that works at a high standard and looks for new ways to improve.
- A world-class financial services training programme
- Opportunities to do challenging work

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## Job Skills

Architectural modelling, critical thinking, data architecture development, data storage (DW), decision-making, enterprise IT architecture, information technology advice, information technology trends, multi-level communication, physical database design

RBC accepts applications until 11:59 p.m. on the day before the posted deadline.

## Our Employment Opportunities

RBC works as One RBC and follows five shared values: putting clients first, integrity, collaboration, respect and excellence. As one of the world's largest and most successful banks, it sees inclusion and different perspectives as important to continued growth. RBC supports staff in doing their best work, working together, innovating and developing professionally. Its policies and programs foster respect, belonging and opportunities for everyone to create value for clients and communities.

## Talent community

People who join RBC's talent community can receive new postings, career advice and recruitment event updates tailored to their interests.

RBC's careers portal shares information about career paths and how its teams contribute to client and community well-being.

RBC is accepting applications for an existing vacancy. Qualified applicants may hear from the recruitment team for a more detailed review of their résumé.

Search for requisition R0000191160 on the RBC careers portal.

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