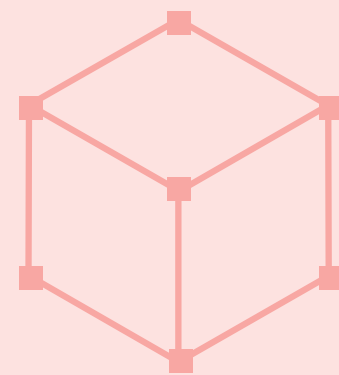


EBOOK

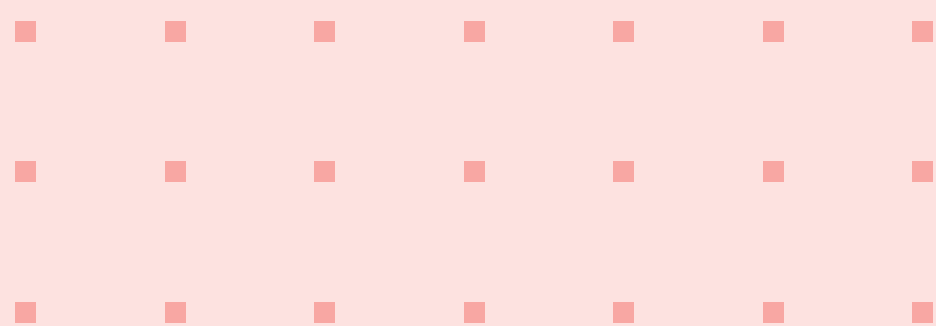
MAKING SINGAPORE A SMART NATION FOR ALL TIME

Enabling a Powerful,
Future-Proof Data Infrastructure

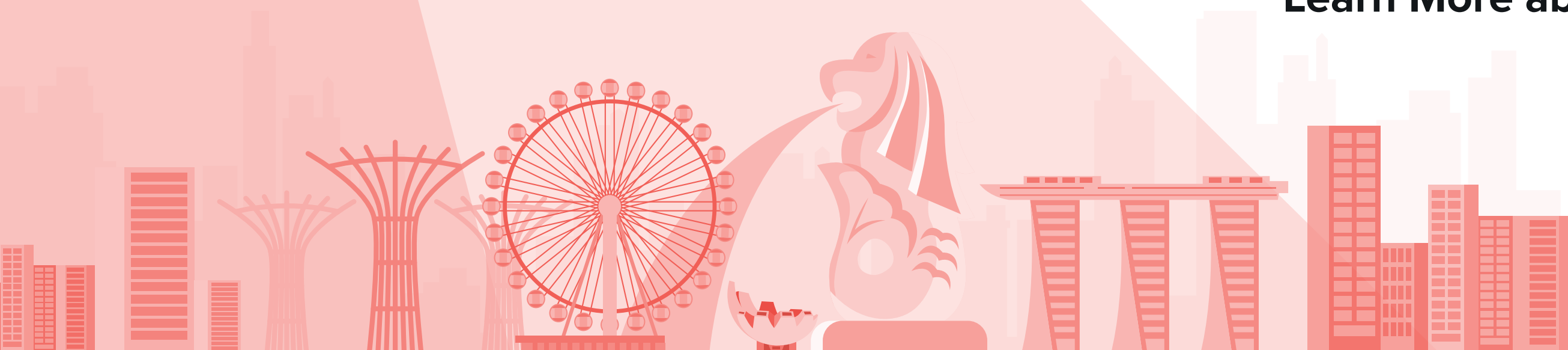




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CHAPTER 1

PUBLIC SECTOR TODAY

Governments globally are under pressure to modernize services, improve citizen outcomes, and build sustainable, resilient societies. But achieving these goals requires more than digital interfaces—it demands accessible, trusted, and well-governed data.

Real transformation means delivering real-time, AI-powered decisions across sectors like healthcare, justice, mobility, and urban planning. Citizens expect secure digital services and policies guided by data—not disconnected digital projects.

Yet challenges persist: data is often siloed, duplicated, and slow to access. Legacy systems limit agility. Without a unified, secure data architecture, many public sector ambitions remain out of reach.

This guide shows how to overcome these barriers and unlock the full potential of data and AI—ethically, securely, and at scale.





CHAPTER 2

THE DATA CHALLENGE

Many public sector agencies are leveraging data lakehouses, cloud data warehouses, and other data platforms to store all of the necessary data from across the organization.

However, the challenge remains: getting the data out of these systems and into the hands of authorized users, when they need it, in a usable format, and in their own language.



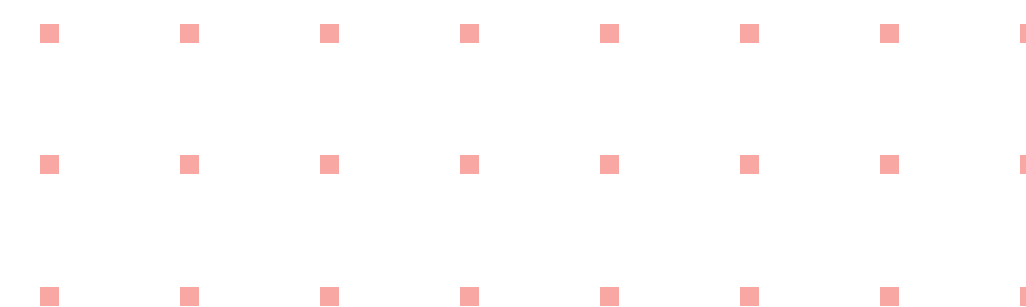
THE DATA CHALLENGE

Agencies need to either

- Provision the data for these different users, or
- Establish self-service data access

But implementing either or both of these capabilities is far easier said than done. Numerous individual reporting tools draw data from the central platform and deliver it to individual consumers, but public sector agencies lack a single, overarching method for delivering all data to multiple users, intelligently prepared to meet their different needs.

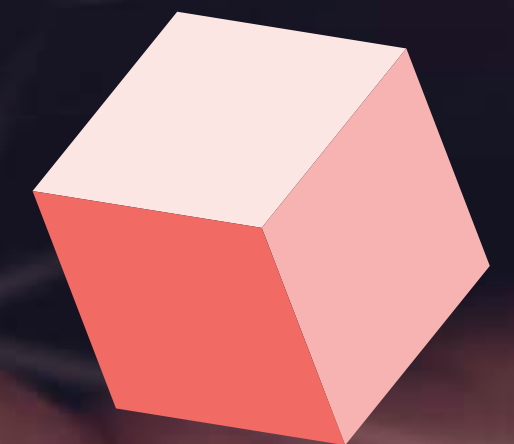
Also, most if not all public sector initiatives can be accelerated and enhanced by generative AI (GenAI) insights. But to gain such insights, agencies need to be able to provide GenAI applications with governed, authoritative data that is delivered in real-time and in an actionable format.



CHAPTER 3

LOGICAL DATA MANAGEMENT AND THE DENODO PLATFORM

Logical data management solutions solve the data challenge. “Logical” means that they are not tied to the restrictions of any one system or reporting tool.



LOGICAL DATA MANAGEMENT AND THE DENODO PLATFORM

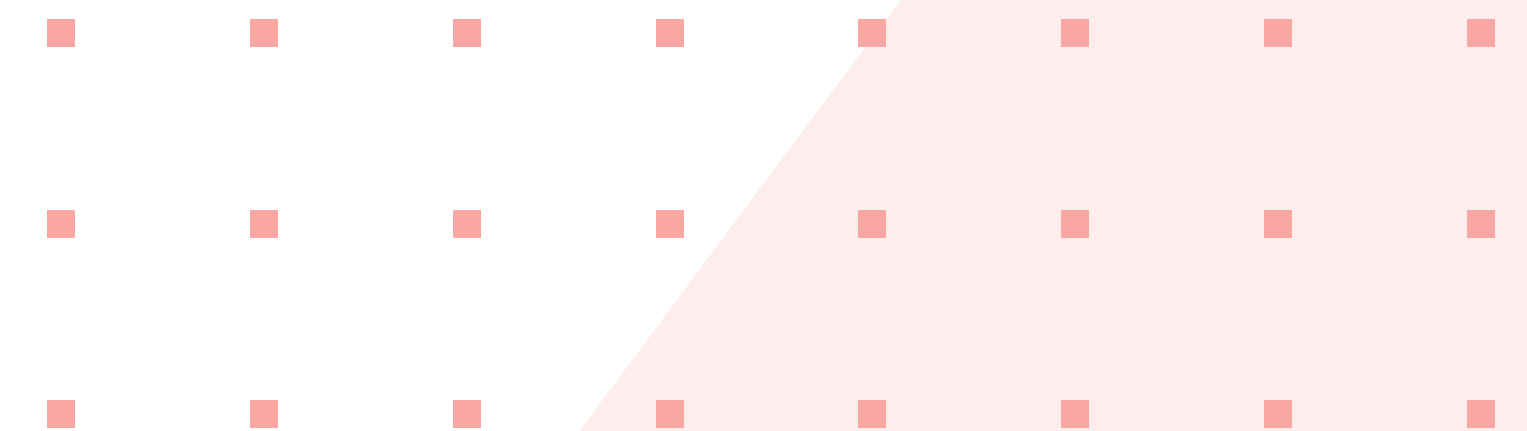
The Denodo Platform is the leading solution for logical data management. Regardless of how and where the data is stored, the Denodo Platform delivers data to authorized users in real time.

It establishes an enterprise-wide logical layer that abstracts data consumers from the source data, enabling them to access and manipulate abstracted data views without affecting the underlying data.

Because this layer is enterprise-wide, it provides:

- Universal semantics, automatically transforming data into the language required by different user groups
- The ability to develop data products in an iterative, creative manner, to meet myriad use cases, without affecting the data that feeds them

- Data governance for “guard rails” and data security for protection, risk mitigation, and compliance
- Full-featured data catalogs and data marketplaces that list all data in a user-friendly, searchable interface and provide access right from the interface
- A future-proof data infrastructure that enables zero-downtime migrations and modernization efforts, while supporting agile new developments across the entire organization
- AI-ready data drawn from all across the organization



CHAPTER 4

MODERNIZING JUSTICE AND EDUCATION

Despite significant investment and ambition, many public sector institutions in education and justice still face a common challenge: data that can't move, integrate, or inform at the pace that innovation demands.

The Denodo Platform solves this problem by enabling real-time access to all of this data, without requiring replication. With this level of data access, justice and education are no longer held back by poorly integrated data and can innovate at will.



The background of the slide features a blurred city skyline at night, with lights from buildings and streets. Overlaid on this are several financial data visualizations: a line graph with a yellow and blue line showing fluctuations, and a candlestick chart with blue and orange bars at the bottom. A red hexagonal icon with a white dollar sign and a hand holding it is positioned on the left side, partially overlapping the charts.

CHAPTER 5

STREAMLINING FINANCIAL GOVERNANCE

Regulatory bodies around the world are walking a tightrope. On one side, they must uphold strict compliance standards and maintain public trust. On the other, they're expected to respond swiftly to economic uncertainty, digital disruption, and increasingly sophisticated fraud. In this environment, compliance frameworks are evolving more quickly than systems can adapt, threats are emerging before siloed detection models can respond, and economic planning requires the kind of agility that batch-based pipelines can't deliver. The need for real-time, AI-ready, and governed data isn't a luxury — it's a fundamental requirement for success.

Rather than duplicating data across systems or building new infrastructure, the Denodo Platform establishes a governed, virtual layer that delivers secure, audit-ready data — from wherever it resides — to the people who need it, when they need it, and it provides AI-ready data to AI applications.

CHAPTER 6

RETHINKING DATA FOR THE FUTURE OF THE ENVIRONMENT, FOOD, AND ENERGY

Many governments have made impressive strides in managing environmental sustainability, food security, and energy transition with precision and purpose. Yet, a persistent challenge remains: **data fragmentation**.





RETHINKING DATA FOR THE FUTURE OF THE ENVIRONMENT, FOOD, AND ENERGY

Environmental, social, and governance (ESG) metrics, emissions tracking, and safety data often reside in disconnected systems. Food supply-chain traceability spans multiple agencies and platforms with limited interoperability. Meanwhile, real-time forecasting for climate and energy scenarios is frequently hindered by legacy integration bottlenecks.

This siloed approach restricts visibility, slows innovation, and places added pressure on the teams striving to turn sustainability goals into real-world outcomes.

The Denodo Platform enables a holistic approach to environment, food, and energy sustainability by unifying and simplifying access to ESG and other required data in advance of regulatory deadlines. Compliance can also be enabled by data products that draw on authoritative data sources to deliver exactly what is needed in its expected format. The data is no longer siloed; it's activated.



ESG

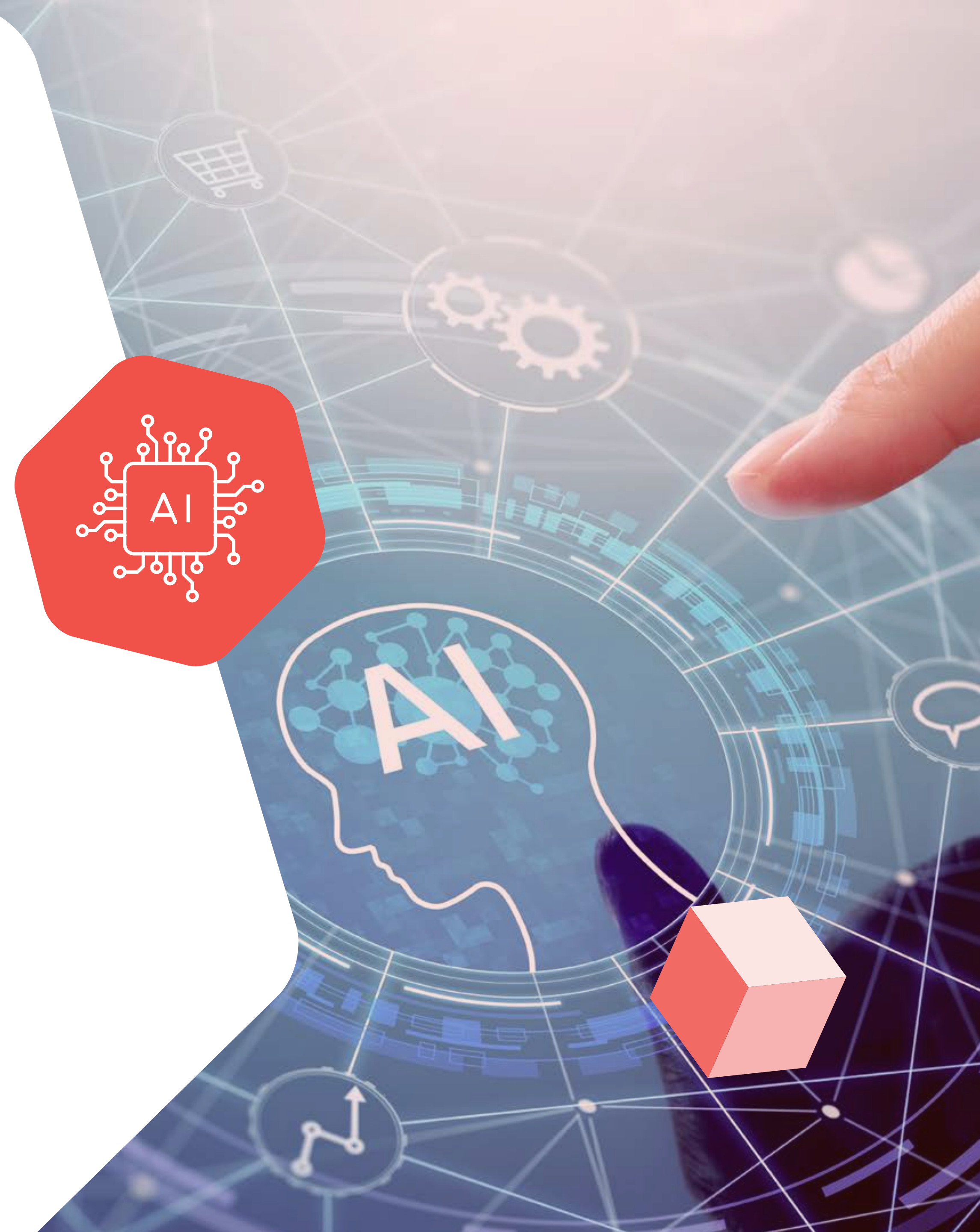


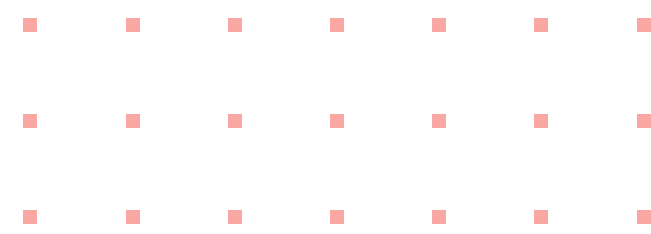
CHAPTER 7

ACCELERATING GEN AI INSIGHTS WITH AI-READY DATA

GenAI is revolutionizing the public sector by unlocking deep operational insights, optimizing workflows, and accelerating innovation. However, its success depends on high-quality, accessible, and governed data.

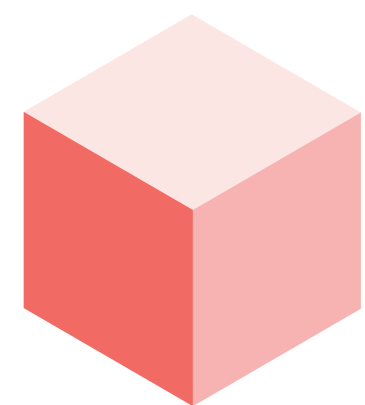
Denodo's logical data management approach virtualizes and unifies disparate sources in real time, delivering AI-ready data without costly and time-consuming replication. This ensures faster, more efficient, and more cost-effective GenAI adoption, empowering agencies to maximize AI-driven value while maintaining agility and compliance.





Learn More about the Denodo Platform

Visit denodo.com to access hundreds of case studies and learn more about [logical data management](#) and the [Denodo Platform](#).



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Denodo.
Data at
the speed
of business.
