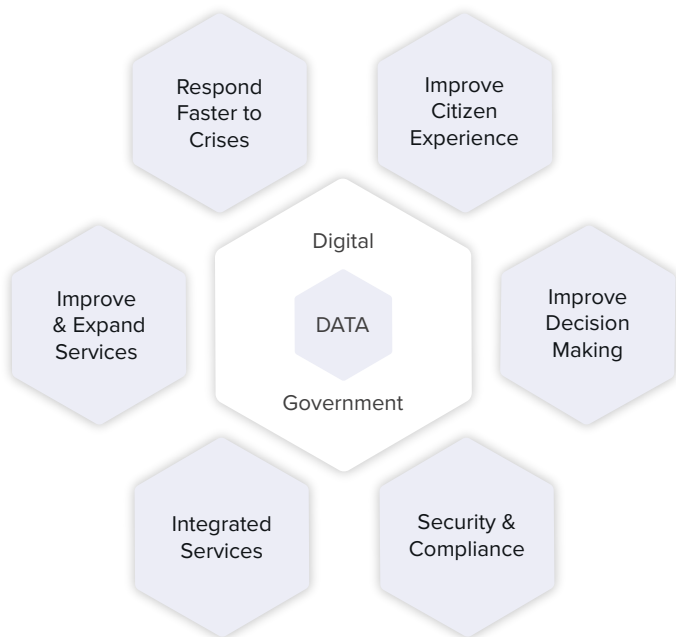


# Logical Data Management Approach for Smart Government



## Key Challenges for Singapore Government

Ministries, statutory boards, and agencies need to strengthen the integration between operations, policy, and technology, so that the Singapore government can become a more resilient and reliable digital government. Because such offices also need to improve policy development, decision making, service and community, technology and data play a key role in overcoming these challenges.



At the core of a digital government is data.

Data must be better leveraged, to help the government build a digital economy and a digital society, in support of a Smart Nation.

Data, if more effectively leveraged, solves challenges and enables stakeholders to better serve citizens, businesses, and public officers.

A better use of data can increase productivity, reduce costs, improve the citizen experience, offer efficient, integrated services, and enable officials to respond more quickly to crises. However, to leverage data most effectively, while adhering to security, compliance, and data protection policies, the government need a reliable and secure data management platform; this is the key to their success.

### SOLUTION

Logical Data Management for Government

### INDUSTRY

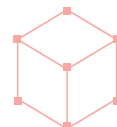
Government

### WEBSITE

[www.denodo.com/en/solutions/by-industry/public-sector-and-education](http://www.denodo.com/en/solutions/by-industry/public-sector-and-education)

### PRODUCT OVERVIEW

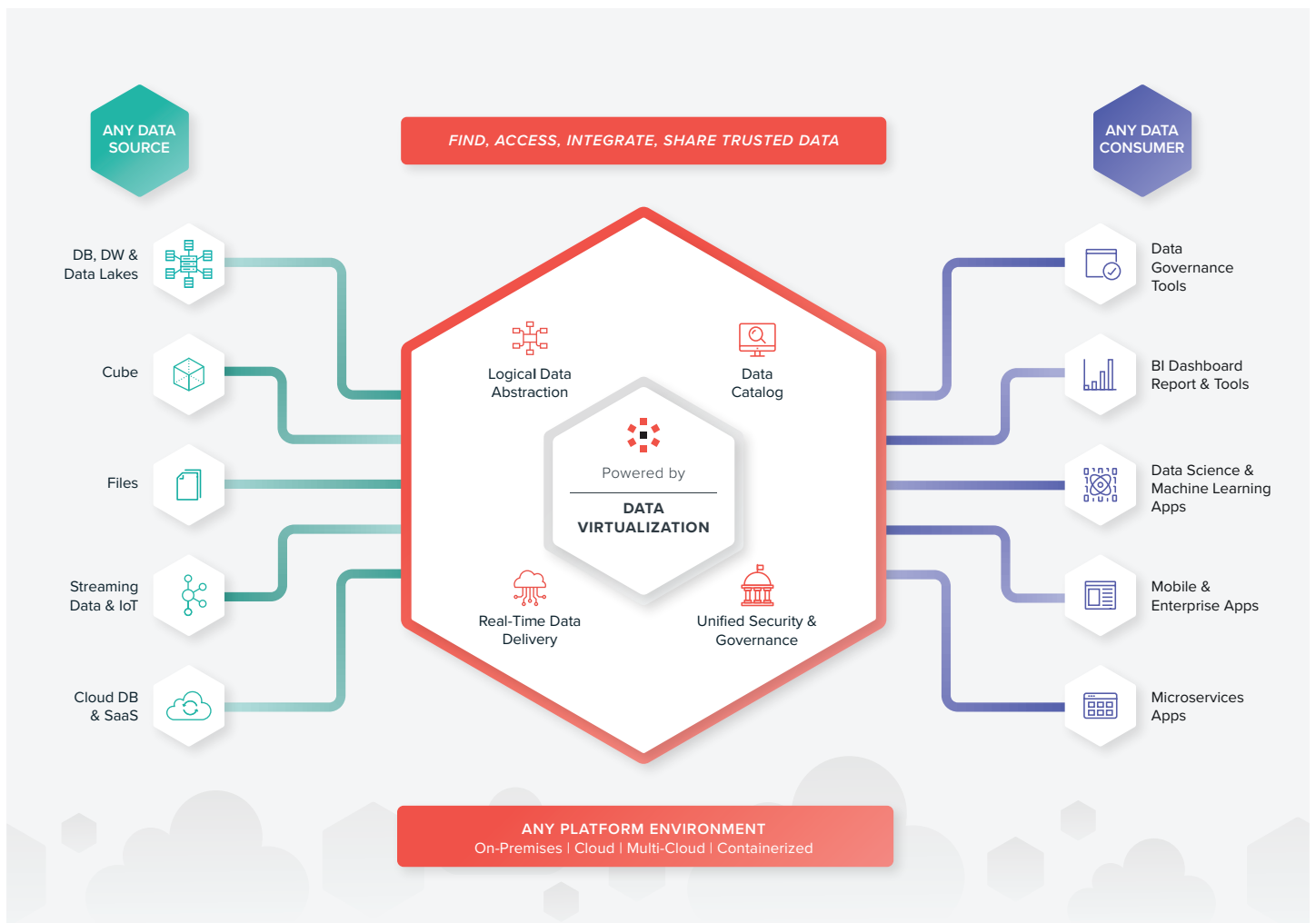
The Denodo Platform leverages data virtualization to seamlessly implement a logical data architecture, employing modern features such as semantic data layers, metadata management, a recommendation based, user friendly data catalog, and hybrid, multi-cloud deployment options to break down the boundaries separating applications, data, clouds, and people to support the government's mission, IT transformation initiatives, and mandates.



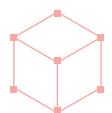
## A Logical Solution to Data Management

A logical data management architecture enables unobstructed yet secure access to distributed data. It helps all data consumers and stakeholders, quickly find, understand, access, shape, integrate, share, and use trusted data throughout government institutions, agencies, and departments. A logical approach can enable;

- **Data for Any Data Consumer or Use Case:** Gain access to timely, trusted, and shareable data services, in a self-service manner, for a wide variety of analytical, operational, and governance use cases, supported by automated data discovery and quality control.
- **Data from Any Data Source:** Access, integrate, and transform data-at-rest or data-in-motion across disparate, distributed data landscapes using metadata and pipelines with trusted security and protection.
- **Deployments in Any Platform Environment:** Move forward with a logical data platform, which flexibly spans distributed on-premises systems and private-, public-, hybrid-, and multi-cloud environments providing seamless data integration across diverse data landscapes.



Data virtualization is a style of data integration and delivery. It is the essential component of a logical data platform approach. Rather than physically moving data from various on-premises and cloud sources using the traditional extract, transform and load (ETL) processes, data virtualization connects to different data sources and integrates complete views of the data in real time, using metadata, creating a virtual data layer.



# Denodo Platform Architecture



For public sector organizations seeking to integrate multiple data sources, cloud systems, compute engines, domains, and other systems, there should be no question about implementing a logical data management architecture. Data can then be consumed by any application.

The Denodo Platform has been deployed successfully in Government agencies across the globe to help address a range of information management and data integration challenges

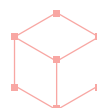


Accelerating Data-Driven Transformation and Modernization in the Public Sector

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Denodo is one of the products awarded in the GovTech's bulk tender (Reference No. GVT(T) 20005) for the provision of Data Science (DS) Software and Services to Government Ministries/Departments, Statutory Boards, Organs of State and Participating Entities.



## Leveraging Data to Solve Many Use Cases

The Denodo Platform helps government organizations with many solutions;



Data Protection

### SECURITY & COMPLIANCE FOR DATA PROTECTION

The government wants to enhance the resiliency of systems and safeguard both government and citizen data from increased cyber threats. Leveraging a single logical platform in which data protection and security policies can be centrally managed, stakeholders have full traceability and the protection of all data being accessed.



Trusted Centres

### IMPROVE DECISION-MAKING THROUGH TRUSTED CENTRES

The government wants to deliver trusted digital services to citizens faster and more cost efficiently. The Denodo Platform provides direct access to data, so decisions can be made in real time through a unified security and governance layer that complies with regulations and monitors data usage.



Single Sources of Truths (SSOT)

### RESPOND TO CRISES MORE QUICKLY THROUGH SSOT

The government wants to provide digital platforms that can help businesses and the larger community. Through a single, secure logical data access layer, responding to new requirements is faster and easier, with reduced time and effort to source and integrate data.



ICT Modernization & Hybrid Architecture

### IMPROVE & EXPAND SERVICES THROUGH MODERNIZATION

The government have set a target to migrate 70% of less sensitive systems to the cloud by 2023. Denodo's logical data platform enables government organizations to integrate and synchronize data across hybrid- and multi-cloud environments. This helps to improve and expand the services provided.



Inter-Agency Data Exchange

### INTEGRATED SERVICES

The government has defined common data standards and formats to enable better, more effective data sharing between agencies. A logical data architecture can assist to provide the reliable collection, integration, and dissemination of data through low-code APIs and data services.



Citizen Centric

### IMPROVE CITIZEN EXPERIENCE

The government wants to provide an end-to-end digital experience that better serves citizens. A logical data architecture ensures a citizen-centric approach that helps to deliver personalised services and content that is relevant to their needs.

## Customer Success Stories

### Streamline Data Processing while Reducing Costs



#### The U.S. Federal Aviation Administration (FAA)

The FAA modernizes and consolidates multiple mission projects with 96% faster time to-delivery – two weeks vs. a projected one-year timeline and 99.8% project cost savings – 80 hours vs. a projected 40,000 hours.



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### Secure Data Movement and Sharing



#### Pantex Used Data Virtualization to Share Sensitive Information Across Facilities to Maintain the Nuclear Weapons Stockpile

With a long-term mission of safely and securely maintaining the nation's nuclear weapons stockpile and dismantling weapons retired by the military, the Pantex data virtualization strategy plays an important role in expediting projects by enabling fast and secure data movement through different facilities.



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### Improving the Citizen Experience



#### Italian National Institute of Statistics

The Denodo Platform streamlined the data integration process at Istat and enabled more complex, rigid data systems to be connected for the statistical analysis of demographic, economic, and social data.



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### Respond More Quickly



#### Canada's Largest Public Healthcare Provider

The Denodo Platform enables the provider to release small changes very quickly, enabling the organization to rapidly adapt to user requirements. It also improved the organization's turnaround time by 30 to 50%.



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## The Benefits

The business value of a logical data management platform is clear. It provides one place to go for all data, to support better, faster insights. It offers consistent, high-quality, governed, and secure data to every data consumer.



### Secure & Governed Data

A logical data platform provides a governance layer to manage and protect all data and its use.



### Trusted Data

Data is accessible in a single place and is promoted as a trusted source. Data can be in a hybrid of cloud and on-premises environments.



### Faster Access to Data

Data can be accessed directly in real-time, enabling stakeholders to get answers quickly for better, faster, and more informed decisions, to improve the citizen experience.



### Shared Data

Data can be shared in a controlled, secure manner.



### Reduced Effort & Cost

Data preparation can be performed in one place, minimising effort and promoting reusability.



**83% reduction**  
in time-to-value



**67% reduction**  
in data preparation effort



**65% decrease**  
in delivery times over ETL

Source: Forrester Total Economic Impact™ of Data Virtualization, 2021

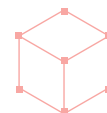
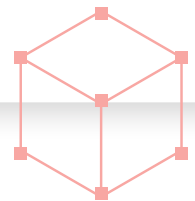


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Learn more at

<https://www.denodo.com/en/solutions/by-industry/public-sector-and-education>



# denodo

Denodo is a leader in data management. The award-winning Denodo Platform is the leading data integration, management, and delivery platform using a logical approach to enable self-service BI, data science, hybrid/multi-cloud data integration, and enterprise data services. Realizing more than 400% ROI and millions of dollars in benefits, Denodo's customers across large enterprises and mid-market companies in 30+ industries have received payback in less than 6 months.

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