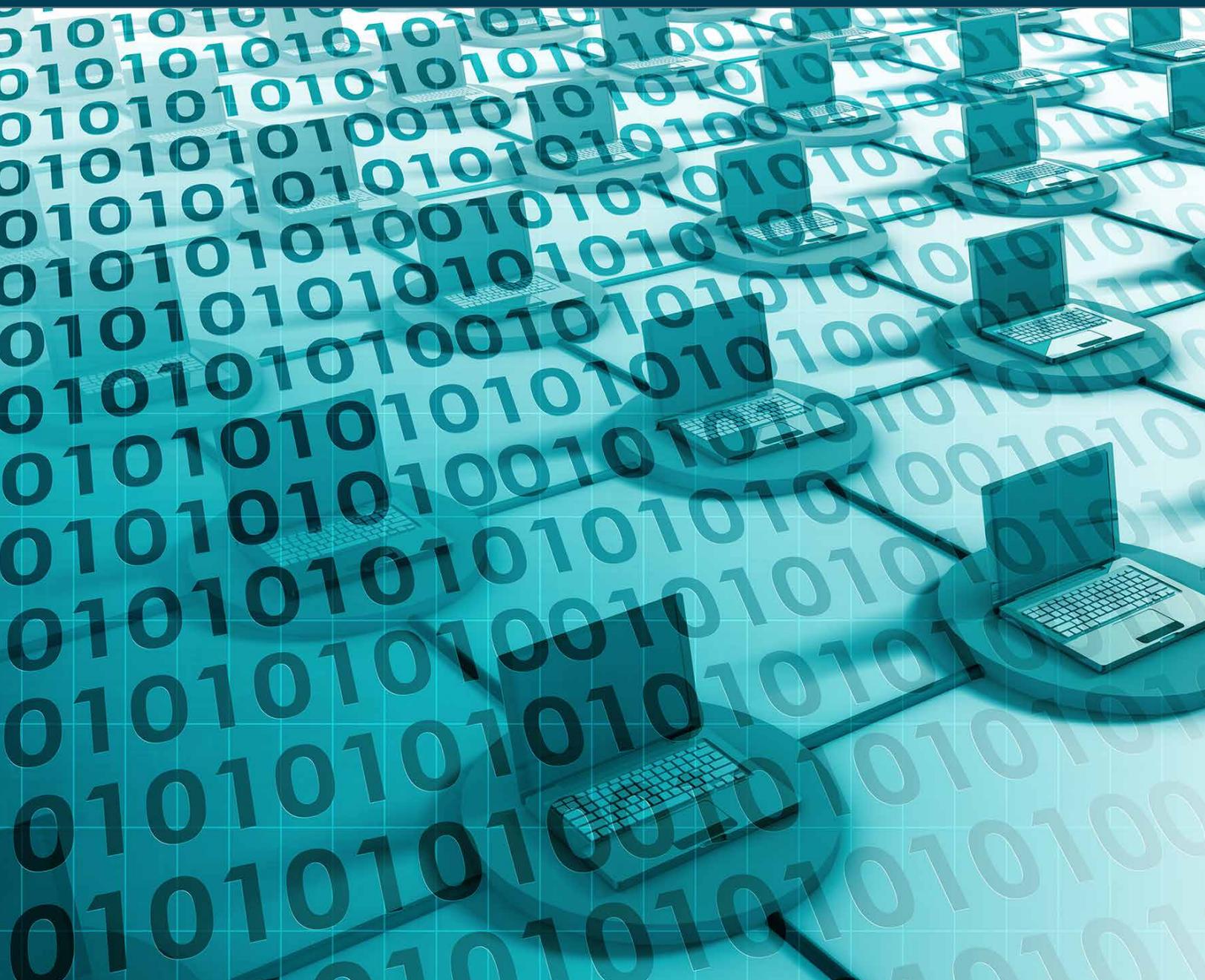


# ACHIEVING A UNIFIED GOVERNANCE STRATEGY

Bringing Order to Structured and Unstructured Data by Delivering Governed Information to the Business



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## Bringing Order to Structured and Unstructured Data by Delivering Governed Information to the Business

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**EXECUTIVE SUMMARY: Effective data governance has become a driving factor for businesses seeking to garner the most value out of their data. In essence, data governance introduces practices that optimize the value of data, clarifies the ownership of the data, and enables businesses to make better decisions based upon the data.**

Both business and IT managers have come to acknowledge that data governance has become a requirement for ensuring an organization's information assets are formally, properly, proactively and efficiently managed throughout the enterprise to secure both its trust and accountability.

Data governance is all about managing data, by revising that data to standardize it and bring consistency to the way it is used across numerous business initiatives. What's more, data governance ensures that critical data is available at the right time to the right person, in a standardized and reliable form. A benefit that fuels better organization of business operations, resulting in improved productivity and efficiency of that organization. Thus, the importance of proper data governance cannot be understated.

The concepts of data governance have evolved, where the first iteration of data governance, often referred to as version 1.0, focused on three simplistic elements: objectives, structure and processes; having a limited focus and scope due to its tactical usage. The opportunity from the growing value of data in the realm of analytics, business intelligence, and generating insights was left unrealized. Today, organizations are moving towards what can be called Data Governance 2.0, a more appropriate iteration, which brings more value to a wider range of stakeholders, empowering them to garner knowledge, trends, and insights from the data, and apply those discoveries to business practices.

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This paper is intended to help those seeking to benefit from the transformation of Data Governance 1.0 to its latest iteration Data Governance 2.0, and help to generate the momentum to make the latter a business wide priority, while also establishing its importance as a business issue deserving attention and investment.

**INTRODUCTION**

Data governance was initially defined as project driven IT function, that encapsulated an approach on how to manage enterprise data. Adopters used an established framework that created a structure for data, which featured accountability, while ensuring the security and privacy of the data. While effective at managing, and controlling data assets, Data Governance 1.0 brought little to the table in the form of insight, opportunity identification, and transforming data into the currency of business operations.

New business opportunities, improved technologies, the need for better business intelligence, as well as the evolving requirements set forth by compliance regulations has driven enterprises to go beyond what Data Governance 1.0 offered. Now organizations are moving to a more unified approach of managing and extracting value out of that data, a desire that gave birth to the concept of Data Governance 2.0, a new framework that brings much more value to the information that enterprises are charged with collecting, maintaining, and protecting.

The primary differences between Data Governance 1.0 and 2.0 comes down to the simple recognition that the former is the traditional way to look at governance, which focused on data within the firewall, used static methodologies to manage structured and unstructured data, and ensure compliance with regulations.

Data Governance 2.0 extends the value of data by allowing the use of enterprise information assets by every corporate citizen to derive greater business insight while still complying with regulations. It also supports hybrid platforms beyond the firewall, while also bringing a commonality to policy administration, metadata access, data management, and data stewardship.

**New Ideologies Bring New Roles:**

With companies recognizing that data has become a valuable resource, as well as the internal currency of the business, defining a dedicated resource that can ensure the effective treatment and use of data has become a priority. For many enterprises, that resource has been manifested as the Chief Data Officer (CDO), a C-level executive charged with driving business actions underpinned by the data, advancing business transformation, monetizing data, and enabling data scientists and business analysts to derive value from the data.

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CDOs are rising in importance across numerous enterprises, especially those that can realize additional value from their data stores and move further along the path towards digital transformation. However, to be successful in those roles, CDOs act as a bridge between business operations and IT, enabling use and access of data across the enterprise, with the goal of fueling collaboration and sharing of information. This is done by enhancing the security of data, while instituting compliance controls and meeting regulatory needs.

**SECTION 1: THE EVOLUTION OF GOVERNANCE**

It's no secret that any governance strategy must be built upon a solid foundation, a foundation that is well defined and offers elements that the CDO can execute upon. Making the move from Data Governance 1.0 to Data Governance 2.0 requires a shift in ideology, one where data is thought of as a currency, instead of a commodity. An ideology that also redefines what data is and where it resides. Data Governance 1.0 strategies focused on the data within the firewall, stored on internal systems, each with its own complex policies or storage virtualization solutions making the data accessible across multiple applications.

Data Governance 1.0 consisted of the traditional way of managing data within the firewall and used distinct methodologies to manage structures and unstructured data. As a process, it was led by IT, with the ancillary goals of helping to maintain compliance and support compliance use cases, such as; e-Discovery, records management, archival processes, Data Protection Regulations, BCBS 239 (Basel Committee on Banking Supervision), as well as multiple other compliance driven processes. Ultimately, Data Governance 1.0 was all about making sure data met the needs of compliance regulations and helped enterprises to avoid fines or other legal issues based upon compliance violations.

Data was also treated as the responsibility of IT, with IT instituting rigid procedures to meet security and compliance requirements, as well as supporting the line of business applications. These methodologies stymied innovation and made in depth analytics burdensome. What's more, businesses were limited in how quickly they could react to change, change driven by short term initiatives or long-term plans.

Data Governance 2.0 allows businesses to be more responsive to changing demands and in some cases, can provide the catalyst for change, allowing businesses to outpace trends, competitors, or realize other data driven insights or value from the data. Such a framework accomplishes that by introducing unified access and management of informational resources.

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While the technical aspects of initiating a Data Governance 2.0 project are critical, the truth of the matter is that the ideology is what drives the change. For example, the transformation should achieve the critical goal of maintaining that data is an asset, not a liability. A unified approach to managing structured and unstructured data becomes the key to handling explosive data growth, generated by digitization of processes and tools. Additional data growth will also be driven by IoT adoption, which in turn will bring large volumes of semi-structured data into an enterprise.

Other key components of a Data Governance 2.0 platform include self-serve data mining, allowing business analysts and data scientists to innovate based upon the data. Accountability also has to be part of the equation, where data life cycles can be addressed, as well as ownership. Privacy concerns should be addressed as well, and last but not least, compliance needs should be defined and met. Those factors should be the drivers to move to a Data Governance 2.0 ideology.

However, CDOs need to consider the use cases around Data Governance before committing to a transformation. Businesses may look at governance by assigning two distinct roles, a role of governance for compliance, and a role of governance for insights. Both are deemed important enough to be managed as separate use cases, yet that brings inefficiencies into the management of information. Ideally, the framework behind Data Governance 2.0 creates a unified method of governance, where information management falls under a single management umbrella. That unified management methodology brings with it increased efficiencies, more responsiveness, additional insights, and increase value to the data.

**Driven by Compliance:**

One cannot ignore the impact compliance has had on data. From the outset, compliance has dictated how data should be protected, used, and even accessed. From a management standpoint, adhering to compliance regulations has often resulted in the creation of monolithic data silos, where critical business information has been cordoned off, preventing enterprises from realizing additional value from the data. Simply put, the combination of compliance regulations and the traditional management of data created the concept that data is a liability that must be managed and protected.

Data Governance 2.0 changes that ideology by unifying the management of data, with the protection of data, and integrating the policies and controls needed to achieve compliance. Using that point of view, the requirements set forth by compliance can be used as the catalyst to adopt a new governance strategy. One that leverages the value of the data, while also instituting the necessary protections and audit trails. However,



there are still complexities and liabilities that must be addressed, and in some cases, CDOs may need to seek outside help to achieve those goals. The solution is a [Unified Governance portfolio](#), that provides solutions for data governance, data integration, master data management and data protection allowing for self-serve capabilities which can be realized on premises or on cloud.

**See how one of the [largest transportation company](#) in the United States, is driving down costs and easing compliance with IBM's Unified Governance solutions**



**People and Processes:**

Data Governance exists to serve the needs of businesses and businesses contain people. In the world of enterprise data, setting up the data vocabulary starts with the CDO, who's responsibility is to protect, provide, and execute on the data assets within an enterprise. Simply put, the CDO should be the one to execute on Data Governance initiatives in the enterprise. Naturally, everything does not begin and end with the CDO, others must be involved as well. For example, those responsible for delivering applications must be part of the process, as applications create and consume data, and businesses cannot afford to have line of business applications disrupted by change.

Application Developers, Business Analysts, Compliance Officers, Data Scientists, Data Stewards, InfoSec personal, and many others all have an impact on the effectiveness (or design) of a data governance strategy, where some of those may be consumers of the data, others may be creators of the data, and some may be protectors of the data. All are impacted by any changes to governance. CDOs also need to take into account policies, such as those which define who can have access to the data, and what functions can be performed on the data. That becomes an important consideration when accounting for the implications of data leakage, as well as compliance. For example, do policies need to be created to make private data unclear, such as social security numbers or credit card information.

**SECTION 2: ANALYTIC INSIGHT AND MONETIZATION OF DATA**

Simply put, both IT and business operations must embrace what Data Governance is all about, and realize that it is a concept that extends well beyond the walls of the IT department and must be considered a business practice.

One where the elements of people, policies, and processes are combined with the goal of providing a clear way to measure success, compliance, and organizational effectiveness. Data Governance 2.0 brings business and IT together to extend the





value of data and transform data into a business currency that can be used to fuel innovation, insight, and productivity.

Data in itself is the result of a process, much like a historical record of a transaction, used mostly to conduct a single event to its expected termination. However, as data sets grow more diverse, and more business context is fed into the data, the intrinsic value of that data increases as well. That said, exposing that value becomes the innate challenge, something data analysts have been proselytizing about since the early days of business intelligence (BI).

Data Governance 2.0 brings additional value in the form of enabling practitioners to draw insight from internal data, as well external data. An opportunity created by the normalization of data control, access, and processing. In the past, external data was treated as a separate, unique element that was effectively siloed by those that owned the data.

Data Governance 2.0 changes that dynamic by incorporating ideologies that allow adopters to leverage data that may be found in the cloud. That creates a new world of opportunity, where enterprises can draw additional value by comparing their own data to external data available in the cloud.

However, the value of data is not static; it can increase exponentially once data is analyzed for specific business cases. Think of data as a renewable resource – like solar

energy. Big data technologies can be used to develop a data lake to identify specific trends, such as customer sentiment toward products and services, or seasonal spikes for particular services. While those use cases can attribute value to data sets, they border on the more pedestrian uses of data, and only illustrate the value of data internally to a business and illustrate the importance of data governance.

Transforming data into a renewable commodity means that different methodologies for governing the data should be implemented. Those same methodologies should help secure the data while stripping personal information from the data, to help adhere to data protection

regulations. Certifying the data reduces liabilities yet does not hamper the ability to identify trends or anomalies. That sterilized data can be combined with external, public data to uncover additional value, bringing forth a new kind of analytics, which can be customized to meet specific needs.

Learn how [a retailer](#) deployed IBM's Unified Governance solutions to deliver a best-in-class online experience to its customers



**SECTION 3: WHAT IS UNIFIED GOVERNANCE?**

A Unified Governance approach to data is a result of Data Governance 2.0, which



extends the impact governance has both IT and business operations, as opposed to the ideologies of Data Governance 1.0. To fully understand what Unified Governance brings to the table, one must look at what was expected from Data Governance 1.0. Unified Governance brings concepts such as deriving insight from data, hybrid data management (data inside and outside of the firewall), as well as aligning governance needs to meet compliance at the forefront.

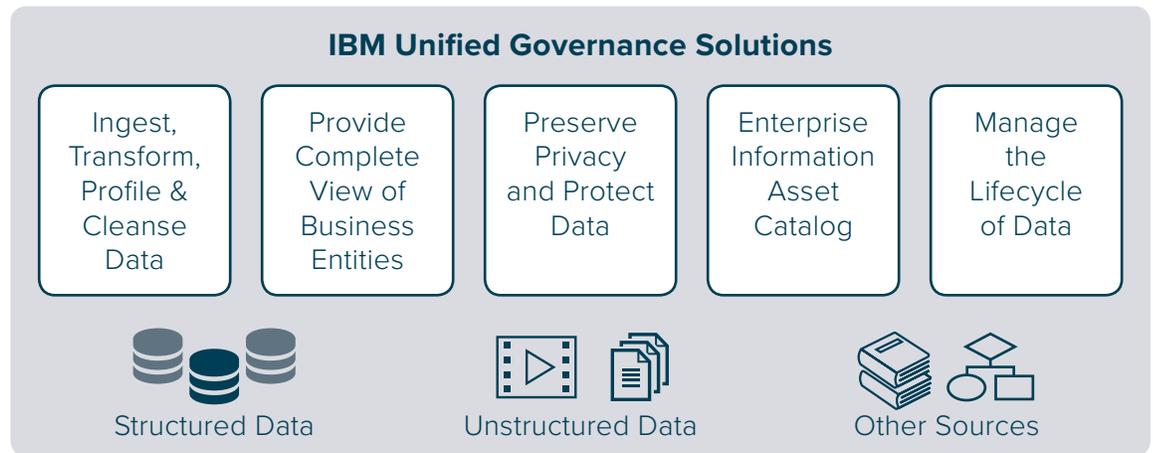


Figure 1: Enable better insight and compliance across all data

In essence, Unified Governance brings with it the capabilities for any corporate citizen to leverage information assets to derive insights from corporate data, while still complying with regulations. What’s more it offers support for APIs and Analytics Tools that function both within and beyond the firewall, while also instituting the concepts of commonality in the form of policy administration, metadata management, consent management, and data stewardship.

From a compliance standpoint, Unified Governance brings forth the ability to work with data lakes, self-service analytics, data science solutions, while reducing the worries of compliance violations. A functionality that enables both IT and other business departments to better leverage data for deriving insights that support business needs.

Unified Governance, as predicated by the Data Governance 2.0 model, can potentially be defined as the melding of “Governance for Compliance” with “Governance for Insights” into a cohesive, centralized platform that is controlled by a comprehensive framework. Executing on that framework proves to be the key to achieving Unified Governance.

**See how IBM’s Unified Governance solutions ensured data privacy and facilitated compliance with regulations for an [insurance provider](#).**





Truly achieving Unified Governance means that the components of compliance, risk management, and business performance must be addressed using a singular framework, which in turn gives corporate citizens the ability to derive insights and create scenarios based upon internal and external data, all without violating compliance requirements and protecting the data under the vestiges of risk management. ■

To know more about IBM's Unified Governance solutions, visit:

<https://www.ibm.com/analytics/us/en/unified-governance-integration/>



Also [read this report](#) to know why IBM has been positioned as a leader in the August 2016 Gartner Magic Quadrant for Metadata Management Solutions<sup>1</sup>.

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