10 Data Management and Governance Actions to Reset, Increase Impact and Enable Remote Work

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Initiatives: Data Management Solutions and 1 more

The response phase of the reset driven by the COVID-19 pandemic has escalated the need for data and data-related capabilities to support remote working. Data and analytics leaders can play a key role in enabling this adaptation by taking specific data management and governance actions.

Overview

Impacts
- The shift from centralized to distributed working requires organizations to make data and data management capabilities available more rapidly and in more places than ever before.
- Given the shift in how organizations are working, consistent and reliable flow of data across people, teams and business functions is crucial to survival.
- The appetite for data to quickly answer new questions, solve new problems and help others (including employees, customers and the general public) means that strict governance controls may be inhibitors.
- Current conditions make collaboration and communication of key data management roles an imperative, requiring different methodologies and orchestration approaches.

Recommendations

Data and analytics leaders responsible for data management infrastructure and data and analytics governance can help their organizations sustain operations when they:
- Increase the availability of data and data management capabilities at the point of need by accelerating the shift of data assets and processing capabilities to cloud and edge environments.
- Protect the data “supply chain” by identifying the most critical data pipelines and redirecting resources to support, enhance and streamline them.
- Open up new ways to apply data in support of current challenges and opportunities by identifying governance controls that can be relaxed to support immediate needs.
Analysis

Disruptive business conditions resulting from the recent COVID-19 pandemic have forced many organizations to cease normal office operations and direct their employees to work from home. This shift in behavior has made data even more critical. Keeping their workforces informed, connected and enabling them to continue communicating and collaborating is a top priority for business leaders. And this requires consistent and reliable access to, and flow of, data in the enterprise.

Data and analytics leaders supporting data management capabilities and enabling data and analytics governance have a crucial role to play in making this happen. How data is organized, made available, integrated, shared and governed is critical to enterprises under normal circumstances. But these capabilities have a massive impact on the ability of teams to continue operations despite being forced to work remotely. When data and analytics leaders adapt their capabilities in the right ways (see Figure 1), they can help sustain operations, enable innovation in the face of disruption and contribute to cost optimization.

**Figure 1: Impacts and Top Recommendations**

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Top Recommendations</th>
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<tbody>
<tr>
<td>The shift from centralized to distributed working</td>
<td>Accelerate movement to the cloud and edge environments, bringing data and data</td>
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<tr>
<td>requires data and data management capabilities to be more rapidly and</td>
<td>management capabilities directly to the point of need, no matter where or when.</td>
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<tr>
<td>broadly accessible.</td>
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<tr>
<td>Data pipelines are the critical “information supply chains” of the</td>
<td>Shift resources to the most critical data pipelines to ensure the reliability and</td>
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<tr>
<td>enterprise and must be protected and enhanced.</td>
<td>optimization of data integration processes.</td>
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<tr>
<td>The appetite for data to quickly answer new questions, solve new</td>
<td>Identify areas where the enterprise can relax data and analytics governance controls</td>
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<tr>
<td>problems and help others means that strict governance controls may be</td>
<td>in the near term to enable data innovation to address immediate challenges.</td>
</tr>
<tr>
<td>inhibitors.</td>
<td></td>
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<tr>
<td>Current conditions make collaboration and communication of key data</td>
<td>Shift the work style of roles involved in delivery of data pipelines to more adaptive,</td>
</tr>
<tr>
<td>management roles an imperative, requiring different methodologies</td>
<td>agile and collaborative approaches by leveraging collaboration tools and introducing</td>
</tr>
<tr>
<td>and orchestration approaches.</td>
<td>DataOps principles.</td>
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</table>

Source: Gartner

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With many immediate and competing priorities, data and analytics teams can’t do everything at once — they must determine which adaptations of their data management and governance
Prioritize Adaptations by Impact and Difficulty

Gartner (2020)

Impacts and Recommendations

Distributed Working Means Data and Data Management Capabilities Must Be Available More Rapidly and Broadly

The data management infrastructure in most organizations has been based largely on centralized approaches that are optimized to support centralized and consistent business processes and teams. The shift to remote working creates challenges when data is less accessible, for example due to lower bandwidth or intermittent connectivity, and when applications and processing capabilities can’t be readily initiated or executed remotely. To compensate, data and analytics teams need to adapt in ways that can bring data (and processing of data) closer to the points of need.

Actions for data and analytics leaders:

- **Action 1: Accelerate movement of data assets to the cloud:** Cloud offers the advantage of enabling data and data management capabilities to effectively be visible and accessible from anywhere. Cloud environments can also remove bottlenecks that may arise from the inability of staff to operate in on-premises environments. Data and analytics teams can increase value by
Consistent and Reliable Flow of Data Across People, Teams and Business Functions Is Crucial to Survival

Business leaders have come to realize that flow of data is crucial to survival and can represent a big competitive advantage. During times of disruption, data and analytics teams can help the leadership sustain operations by ensuring that data integration capabilities are both well-supported and adaptable to new ways of working.

**Actions for data and analytics leaders:**

- **Action 2: Accelerate movement of data and processing to edge environments:** Edge computing can add value in scenarios where connectivity may be an issue, or when advantage can be gained through local adaptive/autonomous behavior of entities (including teams, business units and physical assets) within the enterprise (see "Start Moving Data Management Capabilities Toward the Edge"). Distributed data and processing of data in edge environments also diminishes central points of failure and bottlenecks. Data and analytics teams can explore containerization and other approaches to help bring data and data management capabilities locally to distributed work sites.

- **Action 3: Build toward data fabric architectures:** The shift toward remote working is one driver for organizations to rethink their vision for data management infrastructure. Distributed data architectures and adaptive data management capabilities (see "Data Fabrics Add Augmented Intelligence to Modernize Your Data Integration") are rising trends. Design early-stage data fabric capabilities by representing connections between locations, data stores and processing capabilities in graph-oriented models.

- **Action 4: Identify your most crucial data pipelines:** Organizations are rushing to bolster their supply chains to protect their ability to deliver products and services, and they must do the same for data. By redirecting resources from lower-priority activities to focus on the support and enhancement of the most critical data flows in the enterprise, core operations and value will be best sustained. Data and analytics teams should move quickly to expand support for these data pipelines, more closely monitoring for disruptions and modernizing the underlying integration infrastructure to improve reliability. They can identify the highest priority needs by leveraging active metadata representing degrees of usage and connections to critical business processes and applications (see “Create a Business Case for Metadata Management to Best Fulfill Your Data and Analytics Initiatives”).

- **Action 5: Enable “citizen integrator” capabilities:** In the current conditions, it is critical to empower more roles across the organization to participate in generating value from data. By providing simple cloud-based data ingestion/integration services and self-service data preparation tools to more people in the organization, they can increase the scale and speed of
data integration work and bring its value closer to the point of need (see "Market Guide for Data Preparation Tools").

- **Action 6: Adopt data virtualization and API-enablement architectures:** Distribution of teams will continue to drive organizations to develop architectures for integrating and provisioning data that are able to connect components across the ecosystem. Data and analytics teams should accelerate investment in virtualized and API-oriented styles of integration in order to maximize value from this shift.

**Strict Governance Controls Can Inhibit Access to the Data Required to Quickly Answer New Questions, Solve New Problems and Help Others**

Right now, all parts of the organization are hungry for data that could help address problems they have never faced before. The solutions to those problems may reside in data that has generally not been openly shared due to perceptions of risk. As a result, data and analytics governance controls limit the ability of people and teams to access, explore, share and collaborate with such data. These limitations will be under significant pressure as organizations work to quickly adapt.

**Actions for data and analytics leaders:**

- **Action 7: Identify opportunities to relax data and analytics governance controls:** Along with the immediate requirements to enable remote work, and the need to ensure protection of data, the organization may need to also free up data to support analytics focused on resolving response-related challenges or capturing opportunities. This could uncover new ways to analyze and adapt the supply chain, to optimize operational costs, or to reallocate people amid constantly shifting demand. Data and analytics teams should look for older, one-size-fits-all and overly restrictive governance controls that are inhibiting access to useful data as these represent opportunities to increase business value. Working with stakeholders to apply adaptive governance approaches can mitigate risks while increasing outcome-oriented value (see “Data and Analytics Leaders Must Use Adaptive Governance to Succeed in Digital Business”).

- **Action 8: Implement data hub architectures to scale data sharing with appropriate governance:** Distribution of key roles and teams increases both the complexity of data flow and the complexity of governing data. Data and analytics teams can adopt data hub architectures to better compensate for this complexity by providing focal points of availability and sharing of critical data assets, with the necessary governance controls (see "Use a Data Hub Strategy to Meet Your Data and Analytics Governance and Sharing Requirements").

**Collaboration and Communication of Key Data Management Roles Is an Imperative**

Effective data management and governance are people-driven practices. They require consistent and high-quality interaction between a variety of roles, and these roles have grown more diverse
and distributed over time. Maintaining communication and collaboration is even more critical in the current conditions, creating an opportunity for data and analytics teams to add value by furthering the adoption of new types of tools and approaches.

**Actions for data and analytics leaders:**

- **Action 9:** Enable collaboration of remote data management roles via common data and metadata: Database and system administrators, data engineers, data stewards and data scientists have critical roles to play in the delivery of data pipelines. Data and analytics teams should prioritize deployment of tools such as data catalogs (see “Augmented Data Catalogs: Now an Enterprise Must-Have for Data and Analytics Leaders”), broader metadata management solutions and data stewardship applications to enable them to collaborate effectively by working from a common base of knowledge about the data landscape.

- **Action 10:** Adopt DataOps approaches to increase speed and flexibility: Current business conditions place a premium on speed and adaptability. These needs are at odds with traditional approaches to data-related project delivery, with compartmentalized teams and waterfall-style methodologies. Data and analytics teams can help the organization accelerate value through faster, continuous and more adaptive delivery of capabilities by applying DataOps approaches (see “Introducing DataOps Into Your Data Management Discipline”).

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