

Evolving analytics
operating model
can help advance
companies' digital
priorities

Organizations across industries and borders are continuing to invest in analytics to glean customer and operational insights from their data. **Fifty-nine percent** of respondents to Deloitte's [2018 Global CIO Survey](#) identified artificial intelligence and machine learning (AI/ML) as their organization's top investment area.

Cloud-based data platforms and analytics services have made it easier and more cost-efficient to access analytics technologies through flexible consumption models. According to the [Deloitte TMT Prediction 2019](#) report, companies will accelerate their use of cloud-based AI software and services. Among companies that adopt AI technology, **70 percent** will likely obtain AI capabilities through cloud-based enterprise software, and **65 percent** will likely create AI applications using cloud-based development services.

Emerging trends drive increasing need for data analytics

Among the emerging trends driving organizations' increasing need for advanced analytics:

Data growth and proliferation

Rapid digitization of processes, the physical-digital-physical loop of data, and digital exhaust from intelligent products are creating high volumes of siloed data. (IDC predicts the total volume of data stored electronically in 2020 to be around 44 zettabytes; the same value was 33 zettabytes in 2018.¹) This data, proliferating across the value chain in customer relationship management (CRM); configure, price, and quote (CPQ); enterprise resource planning (ERP); and other on-premise and cloud enterprise systems, creates both opportunities and risks for organizations. Combing through it enables companies to develop more targeted products and services, enhance feature sets, offer rich customer service, and more. However, the data's sheer volume and siloed nature often leads to multiple sources of truth, lack of trust in data and metrics, and significant security risk.

“Accelerating connectivity and increasingly powerful cognitive tools are changing the nature and future of work.”

Cloud and flexible consumption

Deloitte CIO survey respondents stated that they plan to dedicate nearly half of their IT spending to cloud, which represents an increase of more than 20 percent from the previous year.² CIOs also noted that organizations are shifting from on-premise models to flexible consumption models in almost all cloud technology use cases to enable a growth agenda, improve business agility, and increase scalability.

Cloud computing is emerging to be a force multiplier in the data and analytics space to create more opportunities for enterprises, including:

- **Easy access to preconfigured analytics solutions and big data platforms.** Leading cloud providers offer an inexpensive way to access preconfigured, scalable, AI/ML-ready solutions that can be spun up in minutes.
- **Efficient integration with a wide variety of sources to enable citizen integration.** Most cloud providers have multiple ways to ingest real-time data generated from sources such as enterprise applications, websites, mobile apps, and Internet-connected devices.
- **Jump-start self-service analytics and AI/ML efforts.** Readily available software-as-a-service (SaaS) visualization solutions provide easy integration to big data platforms and AI/ML starter models via flexible consumption models, a game-changer from a flexibility and total cost of ownership (TCO) perspective.

Future of work

Accelerating connectivity and increasingly powerful cognitive tools are changing the nature and future of work. Cloud, automation, and AI are making it easier for business professionals to scout, implement, and maintain technology without intervention from IT staff and, in the process, redefine organizational roles and responsibilities. For example, by using prebuilt cloud solutions, business professionals in multiple industries are managing real-time exceptions of order-price with minimal IT staff assistance.

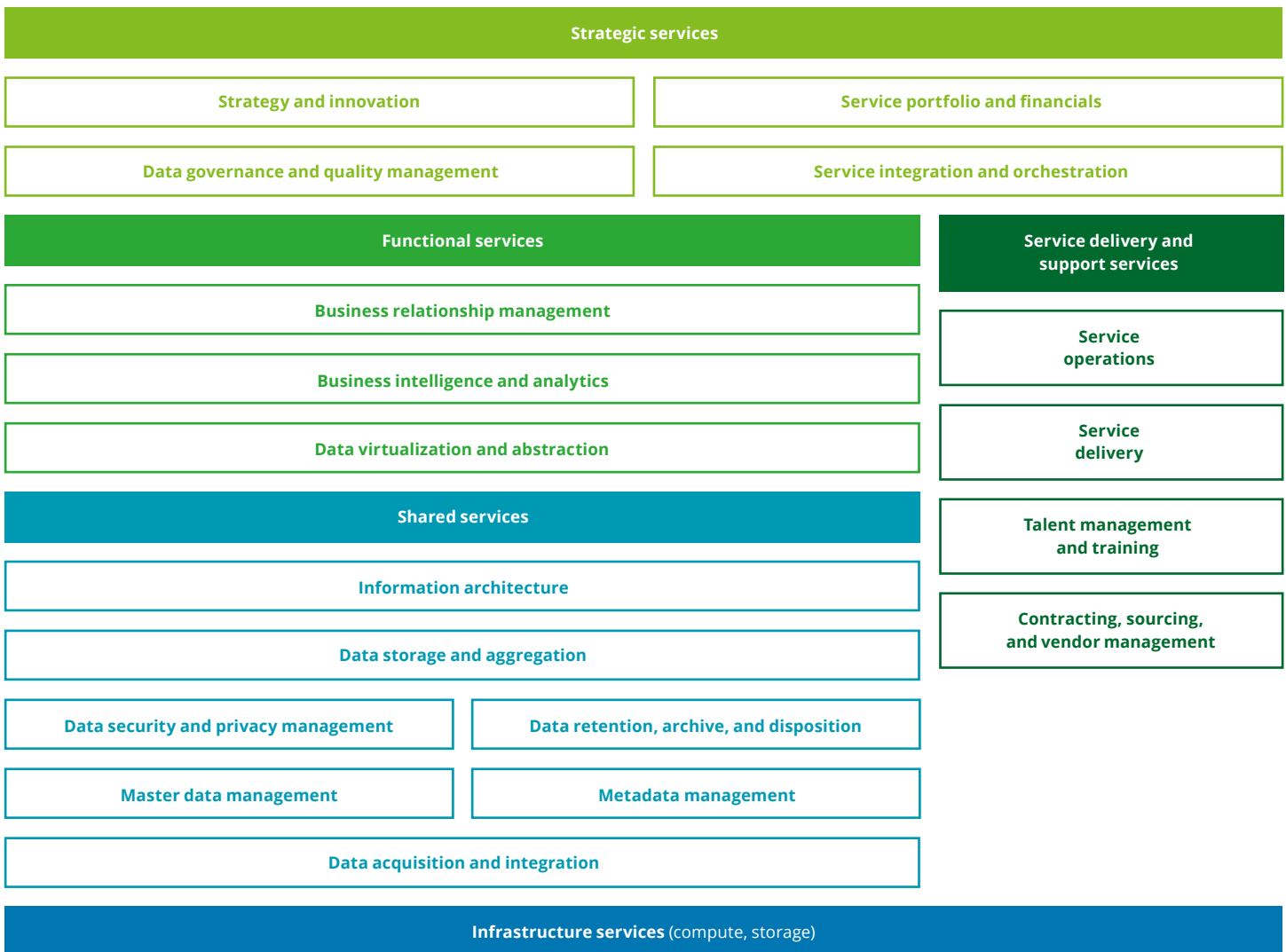
Already, many technology teams are moving from traditional project operating models to ones that are more outcome-centric, focused on delivering value rather than services. In addition, automation and cloud are streamlining and speeding delivery, as well as helping to eliminate some tactical and operational work and move the rest to machines and service providers. The advancement of borderless technology is also changing the perception of IT as the owners of an organization's data. As analytics continues to be pushed out from behind the IT curtain into the business, technology SMEs' primary role is transitioning from developing reports to facilitating provision of clean, accurate, and secure data “on the fly” to business SMEs to accelerate decision-making.



Evolving toward an analytics services operating model

Harnessing the emerging trends of data growth and proliferation, cloud and flexible consumption, and future of work can generate rapid changes in an organization’s structure, operations, and processes. This also enables organizations to transition towards an analytics-as-a-service model by shifting from a product to a services-based operating model (figure 1).

Figure 1. Proposed analytics services operating model of the future



The analytics operating model of the future spans strategic, functional, support, shared, and infrastructure services.

Strategic services

- Develop and refine the strategy for data management and analytics and conduct research on emerging trends in the market, technology, process, industry, and people
- Manage initiatives and opportunities as a formal investment portfolio
- Maintain an up-to-date service catalog and manage budget, chargeback, SLAs, and KPIs

Service delivery and support services

- Provide service design and development and program and release management execution
- Ensure service operations and support in terms of event, incident, service request management, and reporting
- Procure vendors to support delivery of services within the organization
- Recruit, retain, and manage performance of talent

Infrastructure services

- Include computing and storage

Functional services

- Work jointly with business functions to understand their strategy and priorities
- Assist business functions to triage, prioritize, and achieve their analytics goals
- Provide operational reports, self-service analytics, visualization processes, and tools to automate the generation of analytics and insights

Shared services

- Ensure data quality, security, and privacy
- Support information architecture and data modeling
- Acquire, store, and aggregate data from new and existing systems



The operating model should be coupled with a governance structure (figure 2) that spans business and IT and has as its objectives centralizing strategy, governance, and technology; optimizing use of analytics talent; monitoring data proliferation caused by business spinning up new cloud-based analytical tools and processes; and alleviating cloud data and data-in-motion security concerns.

Figure 2. Proposed governance structure

Principles and strategies	Steering committee	Consists of cross-functional leaders from both business and IT that help set the strategy, priorities, goals, and measures of success with an enterprise-level lens. <i>Committee may be chaired by an executive sponsor (such as a chief data officer).</i>
Policies, standards, and delivery oversight	Data governance council	Works with ACoE for development of processes, leading practices, and standards.
	Analytics center of excellence (CoE)	Consists of cross-functional analytics experts that are responsible for execution of the analytics strategy and demand management (leading technologies, processes, standards, and oversight of analytics initiatives).
	Architecture review board (ARB)	Works with ACoE for focus on larger technical decisions, including tools, technology, and cross-platform architecture.
Execution	Operational teams	Formed within business and IT to work collaboratively to deliver on the data and analytics agenda. These teams would be composed of both business (data stewards, data scientists) and technical roles (solution architects, data engineers, data architects).



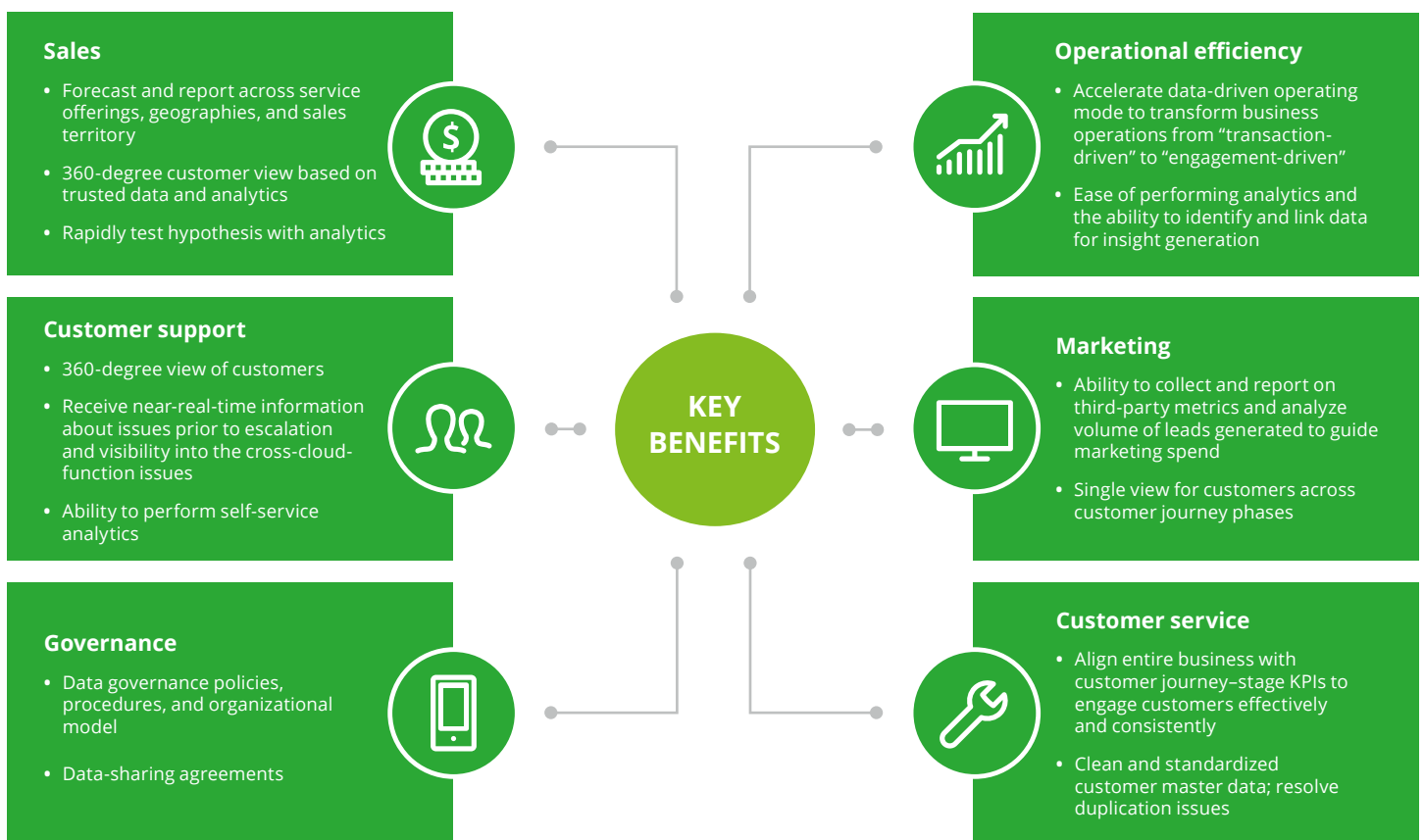
Potential benefits

According to Deloitte’s Global CIO Survey, organizations are using digital technologies and capabilities to transform business operations (69 percent) and drive top-line growth through improved customer experiences.³ Cloud-based data platforms, coupled with service-based analytics operating models, can support these objectives by:

Enabling data democratization to help businesses shift their value proposition from products to ongoing, data-driven services. From R&D and sales to account management and aftermarket services, cloud-based AI/ML capabilities create opportunities to improve efficiency and enhance customer experiences, helping organizations attract and retain customers, as well as drive significant, service-driven value (figure 3). For example, one \$4 billion storage client shifted to outcome-based services via digital adoption and to an agile mindset through a common data platform, enabling shared business alignment on “metrics that matter.”

Supporting cloud-driven customer-centricity by eliminating functional silos to establish a frictionless customer experience. Customer journey-stage KPIs built on a cloud-enabled, unified data platform can facilitate a 360-degree view and a culture of customer-centricity. For example, a global communications network company started its shift to a customer data strategy as-a-service model by using a defined customer data management platform to foster personalized and contextual engagement, with the aim of driving growth in customer acquisition and lifetime value.

Figure 3. Customer and operational benefits



Moving forward

The boundary between business and technology is blurring, accelerating organizations' move toward an analytics operating model through cloud adoption and an evolving business-IT construct. This model is a key foundational element to help their organizations harness emerging trends, develop actionable insights, and deliver results and value more quickly to business and IT stakeholders.

As with any major change, the transition to the analytics operating model of the future requires a shared vision among key leaders, early identification and engagement of the right sponsors, and setting bold yet achievable short- and long-term goals.

Endnotes

1. International Data Corporation (IDC), *The Digitization of the World: From Edge to Core*, November 2018, <https://www.seagate.com/files/www-content/our-story/trends/files/idc-seagate-dataage-whitepaper.pdf>.
2. Ibid.
3. Deloitte, *Manifesting legacy: 2018 global CIO survey*, August 2018, <https://www2.deloitte.com/insights/us/en/topics/leadership/global-cio-survey.html>.

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