Deloitte.
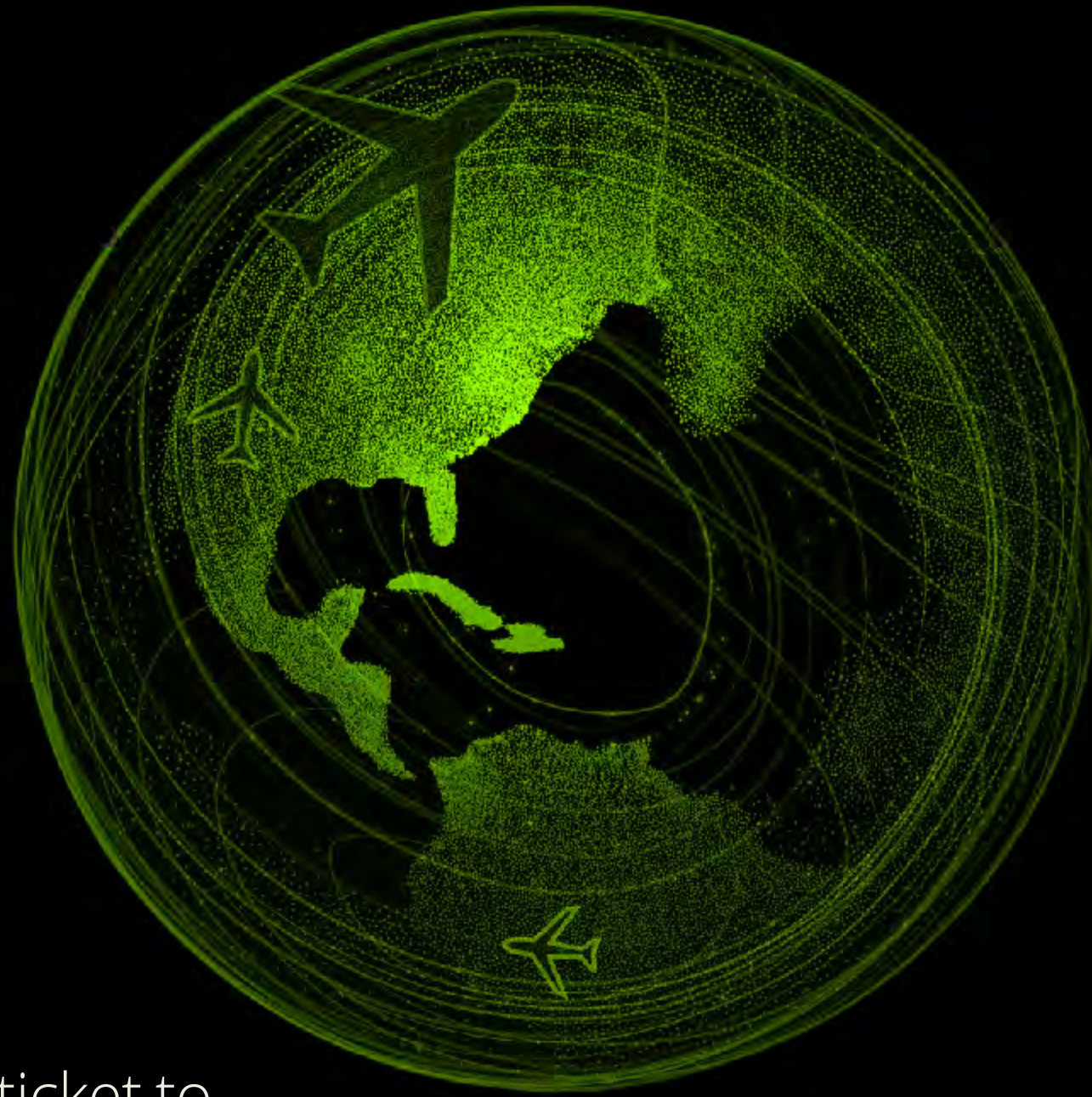
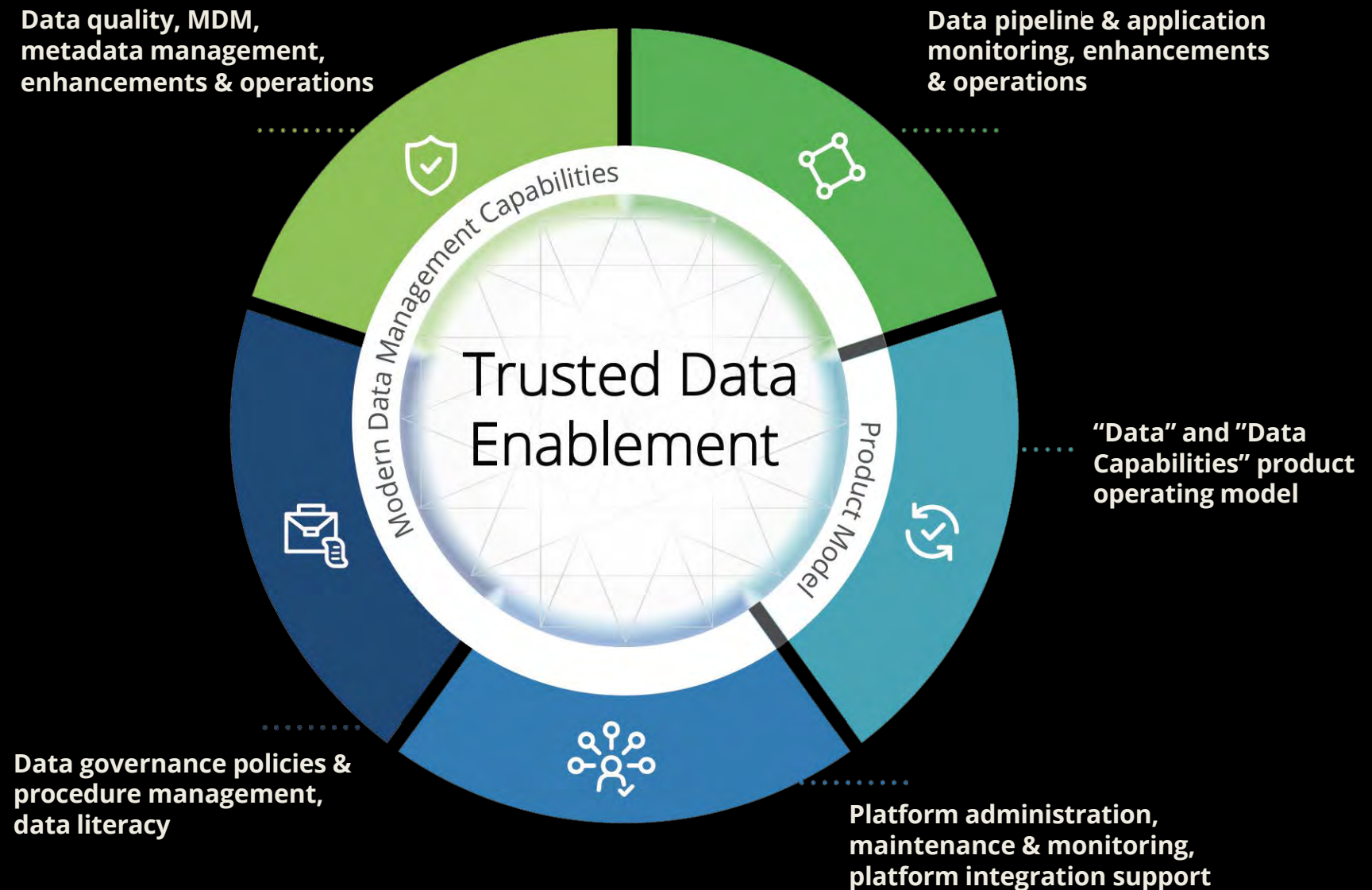View from the top: Your ticket to trusted data through DataOps

Trusted data enablement with DataOps

For many, air travel is the gateway to adventure. It's also one of the best modern-day examples of highly organized chaos. It takes a lot of moving parts to meet the needs of the throngs of passengers who pass through the system every day. The end goal for every traveler?

A trusted traveling experience with zero hiccups.

That's not a bad way to think about DataOps, which operates along similar lines of bringing order to disorder. Organizations strive to create **trusted data in chaos**, driven by modern data management capabilities combined with a leading product-focused operating model. Like air travel, DataOps facilitates a journey from start to finish, only in this case the departure point is raw data and the destination is **reliable business insights for data customers**. And although technology is important, it takes careful coordination of people and processes to provide a customer experience that's as smooth and consistent as possible. It begs the question:

Is your organization enabling trustable data for your passengers?

Data quality, MDM, metadata management, enhancements & operations

Data pipeline & application monitoring, enhancements & operations

Modern Data Management Capabilities

Product Model

Trusted Data Enablement

"Data" and "Data Capabilities" product operating model

Data governance policies & procedure management, data literacy

Platform administration, maintenance & monitoring, platform integration support

DataOps is an evolution of data management

Trusted data enablement is powered by effective DataOps, aiming to deliver business insights in a way that's faster, more consistent, and more attuned to the needs of the business. It's an evolution of traditional data management in that it brings a **systematic approach to the way different teams work with data and one another**. When you think about it, it's very easy to compare DataOps to an airport when you look at the key players you come across during a flight journey:

- **Airport security:** Safety protocols help ensure proper access and guard against threats. Similarly, DataOps requires safe and strong practices using role-based access, monitoring and auditing data, and security automation to promote safe data. The ability to establish data-sharing capabilities to enable **access to the right data at the right time** and enable faster and more reliable development of data products is an early and necessary step.

DataOps is an evolution of data management (cont.)

- **Airplane checks:** These constantly validate that the plane meets approval and provide fixes when issues prevent you from taking off. Data management and maintenance similarly enable DataOps by making sure data is **ingestible and scalable to support business needs**. With the right checks in place, data platform teams can effectively consume and create data products that translate to smooth intake for the end user.

- **Cabin servicing:** Cabin service prepares for a smooth flight by cleaning the plane, ensuring the cabin is stocked, and checking that everything is in order. By the same token, data cataloging and cleansing and data transparency help DataOps to thrive in well-organized, well-prepared organizations. Understanding gaps within skill sets and processes—and more importantly, knowing how to fill them—**will help drive value**.

- **Air traffic:** Air traffic controllers provide real-time updates, check that the skies are clear, and work closely with ground control to adjust for unforeseen changes. Similarly, data observability provides near real-time feedback in DataOps, enabling **quick detection** when things go wrong and proactive decision-making to help **reduce errors in the future**.

DataOps is an evolution of
data management (cont.)

- **In-flight service:** Flight attendants consistently facilitate the on/off boarding experience and check in repeatedly to ensure your standards for traveling are met before, during, and after the flight. Compare this to the role of data governance. Without **standards and rules** in place to enforce, DataOps cannot deliver the availability and reliability that end users desire.

- **Pilots:** Pilots are the people you trust to get you to your destination and encourage you to fly more often. For their part, product managers are at the core of DataOps, bringing the vision to life and continuously enhancing to drive innovation. They are focused on continuously **addressing consumers' data and analytics requests** packaged as products such as combined datasets and self-service capabilities with high data quality.

Getting passengers to their destinations requires well-trained, connected people who understand—and are aligned to—the overarching goal. Some DataOps workers may wear multiple hats. Others may be specialized.

Either way, they should complement the highly integrated process that transforms data into an asset and gets your internal stakeholders where they need to be.

Unleash the value of DataOps by working toward common principles

People and processes can be effective independently. But to fully realize the value of your DataOps program, they'll need to come together under a set of common principles:

Continuously cultivate data as an investible asset

Automate with intelligence by putting AI in the hands of your people

Embed continuous improvements

Connect to innovate

Scale and accelerate on demand

Evergreen value from core operations isn't just a pie-in-the-sky possibility.

Unleash the value of DataOps by working toward common principles (cont.)

To operate under these principles, it helps to aim for certain outcomes and shift with the needs of the business. Here are four that also happen to be key characteristics of a well-orchestrated air travel system:

- **Reliable and available:** Both improve with effective governance and maintenance. When stakeholders **trust your data** and have confidence in your ability to deliver, they're more likely to use the data enabled by a DataOps program. That can encourage insight-driven decision-making, which can lead to an organization that derives **continuous value** from trustworthy data.

- **Resilient:** Through data cleansing and observability, your approach to data maintenance can evolve in ways that can improve **business continuity** and the **durability** of your data assets. Integrity can go up while errors go down, and scalability can help drive growth without potential compromise.

- **Secure:** Domain-driven data management is business-led and owned, enabling strong controls and privacy. Appropriate provisioning allows the **right people to be enabled**, with data being an asset to those who can and should be using it. It can also prevent the value of that asset from being eroded by reducing the risk of data loss and cyberattacks.

- **Product-centric:** When the product is at the center of everything, it breeds an environment that creates trust in the data itself. Trustworthy data scales to new levels, helping organizations meet regulatory compliance requirements, establishing new methods to increase efficiency, and enabling the **generation of insights** to support decision-making and strategy.

Taking flight with trusted data outcomes

Continuously evolving data management capabilities across people, processes, and technology, to realize trusted data through DataOps, is essential from start to finish. Similarly, air travel is about facilitating the entire journey, not just when a passenger arrives at the airport. A firm grasp of needs, requirements, and goals—plus standards and repeatable processes—can preserve order and stability. Along the way, it's critical to answer the question: Are you creating a trusted outcome that gets your stakeholders to their destinations?

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