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CYBERSECURITY LAW & STRATEGY

Cool Your (Data) Jets! Reducing Your Organization's Carbon Footprint with a Data Retention Policy

BY GREG MOREMAN

If you haven't noticed, it's abnormally hot outside. For several weeks, much of the southern United States has been under a **severe heat wave**, with record temperatures and heat indexes of 110 degrees or more. Making matters worse is a cranky **"heat dome"** that refuses to lift.

Along with the increasing temperatures, we've seen a wave of discussions about the causes of such brutal heat, with many pointing to **climate change** as the culprit. Environmental activists are calling on us to reduce our carbon footprint and help protect our planet. And most consumers are familiar with the usual remedies: driving less, recycling, and **reducing our use of plastics**.

But consumers have become increasingly aware of how their purchasing decisions also affect the environment and their community. Some of them **choose to shop** with companies who share this concern, ditching those that don't consider how their decisions affect their communities and the planet as a whole. As a result, some companies have responded with comprehensive environmental, social, and governance (ESG) policies, detailing and measuring the sustainability of their operations.

Despite great strides toward better-for-the-world operating procedures, companies might be surprised to learn that they're likely overlooking one area of their business that heavily contributes to its overall carbon footprint — data storage. That's right: storing your company's data generates emissions. And with the continuous increase in data volumes, the impact will likely only grow.

The Data Explosion

The constant creation of new technologies leads to an inevitable **increase in data types and sources**, with digitization and subsequent applications in various end-use industries serving as the **major drivers of the industry**.

But all that data has to go *somewhere*.

Data storage refers to the magnetic, optical, or mechanical media that preserves or records digital information. Generally, there are two categories of data storage: direct area storage (think floppy disks, flash drives and other things that connect directly to your computer) and network-based storage (servers and the cloud), with the latter being the biggest emissions offender. And because the amount of data continues to grow, it's not surprising that the **market for solutions to house data is** also growing rapidly, with experts projecting a compound annual growth rate of 17.8% from $247 billion in 2023 to $778 billion by 2030.

To be sure, massive data storage solutions are invaluable, allowing quick and efficient transmission of data from anywhere in the world. But the cost to the environment can't be overlooked. For example, some of the **largest data centers** in the world occupy around 10 million square feet of space. (For a frame of reference, Cowboys Stadium in Arlington, Texas, is 3 million square feet). And these data centers are often stacked floor to ceiling with servers.

Though global emissions from cloud computing range from **2.5 to 3.7% of all global greenhouse gas emissions** — more than those from **commercial flights and other activities** that fuel the world's economy — discussions surrounding these emissions are shockingly rare. Perhaps it's because understanding how data storage causes emissions isn't really intuitive. Generally, emissions sources from data storage are divided into **four categories**:

- **Electricity consumed by servers**. The machines used to house data need electricity. In 2020, data centers used around 200TWh, which is about 1% of the global electricity demand.
- **Energy needed for server cooling**. After using a computer for a while, you might notice the device itself heats up. Servers work the same way. To continue to maintain their effectiveness, they need to be cooled down with fans or a cooling system. Multiply this problem across 10 million square feet of servers, and the emissions issue becomes clearer.
- **Manufacturing of servers and cooling equipment**. Rare and raw materials are used here; obtaining those materials requires equipment powered by oil, gas or coal. All these steps add up, contributing to the overall emissions.
- **Employee-use emissions**. Likely accounting for the smallest amount of emissions, employees working in these data centers also contribute to the overall emissions through their commutes, personal computers, and other activities.

Despite data-center installation improvements and more energy-efficiency options, data storage's underlying greenhouse gas and environmental footprint is becoming more and more significant in terms of the overall IT footprint.

Should We Care?

Understanding your company's carbon footprint and putting policies in place related to it can lead to **many benefits** for your company:

- **Customer loyalty**. ESG is important to consumers and leads to an increase in trust and loyalty to your brand. Studies show that consumers are motivated to buy from companies committed to making the world a better place.
- **Slashed operating costs**. Streamlining your business can lead to a smaller footprint and reduce overall costs to boot. In fact, 45% of CEOs report that climate change mitigation has a serious impact on their business.
- **Keeping in step with regulations**. ESG is a hot topic, and government agencies are responding with increasing oversight and regulations. Pay attention to your footprint and stay on the right side of the law.
- **Standing out among the competition**. Customers have options when making purchasing decisions. By pointing them to your commitment to reducing emissions, you're giving them an additional reason to shop with you.
- **Mixing it up**. Sticking with the way you've always done business doesn't make for creative solutions. Revisiting your ESG policies might lead to unexpected outcomes.
- **Interested investors**. Investors want to diversify their portfolios and include companies who focus on making the world a better place; 73% of investors say that efforts to improve the environment and society contribute to their investment decisions.
- **Mother Nature loves it**. Long story short: Taking care of the Earth is the responsible thing to do.

Data Retention Policies: A Step in the Right Direction

First, if you're just getting your feet wet in all things ESG, get familiar with its **purpose and related regulations**.

Next, a great step in reducing your company's carbon footprint is to implement a comprehensive data retention policy. A retention policy simply documents your organization's practice for keeping and deleting data. In the absence of such policies, companies might retain unnecessary data, leading to increased energy consumption and carbon emissions. Implementing data retention policies and practices allows for optimized use of server resources, improved energy efficiency, and enhanced sustainability. Plus, Gartner found that poor data quality can cost your business an average of almost $13 million annually.

If you've reviewed your company's policy and believe you're already on track to reducing your organization's emissions, there are a couple additional measures you can take to continue making a difference, including selecting **energy-efficient data centers** and consistently filtering unnecessary data by developing comprehensive policies that **govern data life cycles** to ensure immaterial data is not stored. Worried about losing data? You can always utilize **tape archiving** to keep it if you believe you'll need it.

Implementing a data retention policy is essential for organizations aiming to reduce their carbon footprint and enhance sustainability. By adopting and adhering to data retention policies, you can optimize data storage, reduce energy consumption, and contribute to a more sustainable future.

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