

# Why does your IT need to be greener?

It's the right thing to do

## Environmentally sustainable computing doesn't stop at hardware

The world's data centers consume about 1 percent of all available electricity and produce approximately 0.5 percent of U.S. greenhouse gas emissions. With the U.S. housing more data center servers than any other country, almost 30 percent,<sup>1</sup> we have a tremendous opportunity to reduce their environmental impact.

Green IT does not stop with hardware recycling and e-waste. A true environmentally sustainable computing and IT program, as shown in the diagram on the next page, encompasses everything related to IT—applications, data, infrastructure optimization, and information security. Hardware is one small piece of infrastructure, which also includes networks, cloud, data centers, and more.

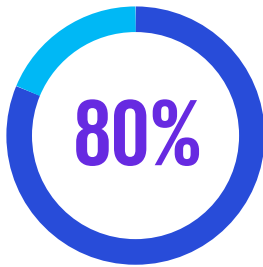


<sup>1</sup> Source: IOP Science, "The environmental footprint of data centers in the United States," Siddik, Shehabi, Marston, May 21, 2021.

## Consequences and opportunities come from unexpected places

Many CIOs, CTOs, and CISOs hyperfocus on solving supply chain and related security problems, which are critical. Some do not notice **environmentally sustainable computing is a simmering issue** like supply chain concerns were not long ago. **The heat will hit from places most leaders won't expect**—customers, investors, boards of directors, and most of all, current and future employees.

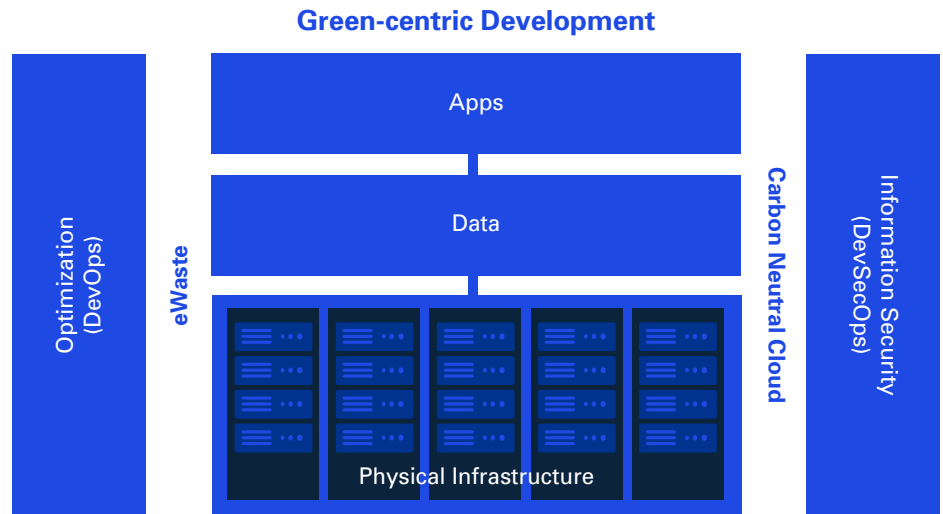
As companies fight to find and keep the right **employees**, 80 percent of people in a recent survey said they would make a lot of or some changes about how they live and work to reduce global climate change effects.<sup>2</sup> Climate change can also affect **investors'** decisions, especially in a volatile stock market. In the 2021 proxy season, 76 percent of filed and 82 percent of all voted environmental



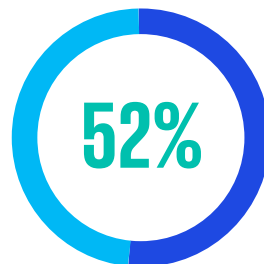
### People who would change to reduce global climate effects

proposals focused on climate, up from 2020 when climate was the focus on 65 percent of filed and 63 percent of voted environmental proposals.<sup>3</sup>

## Environmentally sustainable computing encompasses:



Fifty-two percent of survey respondents believe business is not doing enough to address climate change, which topped the list of societal issues to address over economic inequality,



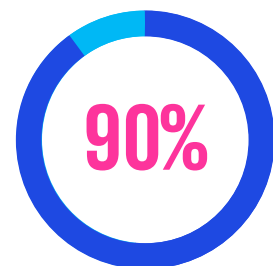
### Believe business isn't doing enough on climate change

workforce reskilling, and trustworthy information. Also, 68 percent expect CEOs to inform and shape conversions and policy debates about global warming and climate change.<sup>4</sup>

As the spotlight grows brighter on environmental, social and

governance (ESG) goals and reports, more than 90 percent of organizations increased their sustainability program investments since early 2020 compared to 2017 investments.<sup>5</sup>

Since IT is the department that provides ESG report data and systems that support the rest of the organization, it has an opportunity to be the sustainability engine with greener IT for other departments.



### Organizations increased sustainability program investments

<sup>2</sup> Source: Pew Research Center, "In response to climate change, citizens in advanced economies are willing to alter how they live and work," Bell, Poushter, Fagan, Huang, September 14, 2021.

<sup>3</sup> Source: The Conference Board, "Proxy season 2022 may be even more challenging," February 15, 2022.

<sup>4</sup> Source: Edelman, "Edelman Trust Barometer 2022," pages 30, 33, 2022.

<sup>5</sup> Source: Gartner, "Gartner Predicts Hyperscalers Carbon Emissions Will Drive Cloud Purchase Decisions by 2025" January 24, 2022.



## Green IT is your problem

How do you light a fire (carbon neutral, of course) under leaders across all industries to achieve greener IT? This doesn't mean greenwashing, the common name for what companies claim to do for sustainability. Greening IT includes the positive difference companies make to save the environment. When it hits the balance sheet, more leaders will be motivated to acknowledge the issue. **Greening IT hits the balance sheet now.** Companies working to optimize and use a smaller footprint have already proven greening efforts show up as savings on the balance sheet. Communicate those successes and reward positive behavior.

Greening IT has been around for decades. The same issues are still important, and it is your problem. While there are no fines and few regulations to hold companies accountable, the SEC is starting to notice and crack down on fake ESG



### Top 3 criterion in cloud purchase decisions by 2025

practices.<sup>6</sup> Efforts must be part of the overall mission to be effective, and there are steps technology leaders can take today.

A study predicts carbon emissions of hyperscale cloud services will be a top three criterion in cloud purchase decisions by 2025.<sup>7</sup> This trend may put pressure on SaaS companies to up their sustainability game.

CIOs can also use cost and carbon emissions data to make better technology decisions while also supporting business counterparts'

carbon neutral/negative targets. IT organizations often use chargebacks to track IT services consumption and allocate service costs to the consuming business units. Carbon emissions can be charged back in a similar way. IT organizations can use an internal carbon price or actual carbon consumption data to calculate business units' IT use. Then they can incorporate usage data into the IT chargeback process that some IT service management platforms already support. This increases carbon consumption transparency and accountability throughout an organization.

### Look to data centers, apps, and data

Companies can find greening IT opportunities in data centers, the app development process, and the data pipeline. Many tech sector companies look at their own and their vendors' sustainability, which will spread from there.

<sup>6</sup> Source: Bloomberg, "The SEC goes after greenwashing," Matt Levine, May 23, 2022.

<sup>7</sup> Source: Gartner, "Gartner Says Three Emerging Environmental Sustainability Technologies Will See Early Mainstream Adoption by 2025" April 21, 2022.

**Data centers have the greatest** environmental exposure. Think about companies like Meta, Google, Microsoft, and Amazon that hold much of the world’s data. As the amount of data these companies store rises, so does the electricity they need to run the systems, move and backup data, and maintain reliable, safe environments. In addition to electricity data centers consume directly, they also use electric power to supply treated water and treat the wastewater they discharge.<sup>8</sup> Despite heavy water consumption, 63 percent of IT and data center managers surveyed in 2021 believe there is no business justification for collecting water usage data.<sup>9</sup> We all know companies are accountable for what they measure, so tracking is a necessary step.

**The way people develop apps** is evolving beyond a constant focus on improving the user experience to optimizing apps for greener consumption through the full software supply chain. Green-centric development can include optimizing data, media, and image use, developing apps to be as efficient as possible without features that won’t be used, and carefully choosing where to host the app.

**Data pipelines also impact** the environment since they source, validate, and integrate data—where it comes from and is going. Information flow in data pipelines is continuous and is not managed or controlled like a thermostat regulates the temperature of your car engine. Companies can design more efficient, sustainable data pipelines by streamlining data flow, consolidating infrastructure, and carefully selecting sustainable vendors.

## Have you asked yourself these greening IT questions?

CTO	CIO
<ul style="list-style-type: none"> <li>1 Are our workloads, the software supply chain, and core infrastructure on a path to achieve lower emissions?</li> <li>2 What efficiencies and/or load balancing processes are in place to lower power consumption?</li> <li>3 Do we leverage cloud footprint calculators to drive measurable outcomes?</li> <li>4 How do we collect and qualify our emissions data?</li> </ul>	<ul style="list-style-type: none"> <li>1 Do we optimize IT investments to achieve functional, IT decarbonization goals?</li> <li>2 What steps can we take to transition to more renewable, sustainable assets for data centers, cloud, and end-user computing?</li> <li>3 Can we optimize overall cost of IT service delivery to meet climate and organizational objectives?</li> <li>4 Can we prove the emissions data we report?</li> </ul>

<sup>8</sup> Source: IOP Science, “The environmental footprint of data centers in the United States,” Siddik, Shehabi, Marston, May 21, 2021.

<sup>9</sup> Source: Gartner, “Gartner Says Three Emerging Environmental Sustainability Technologies Will See Early Mainstream Adoption by 2025” April 21, 2022.

## Progress along your ESG journey now

Why should CIOs, CTOs, and CISOs even start greening IT? Because it is the right thing to do. Many IT departments already use ServiceNow for IT service management. These companies can manage the enterprise ESG program on the ServiceNow Platform, including planning and managing projects, decarbonizing operations and infrastructure, and measuring initiative progress.

Technology leaders are trying to keep the cyber environment safe and staff motivated. They must

stay ahead of constantly changing technology customer demands. Greening IT is a continuous process that starts now and continues as long as information—and humans—exist. KPMG has helped many organizations become ESG leaders. Our teams apply global, cross-industry experience as we work with you on your ESG strategy, execution, reporting, and auditability. The approach defies silos to align your investments and enable transparency to help build trust. It blends ESG efforts with other priorities to enhance business performance. The result is a mature program with ESG infused through your organization for a more sustainable future.



**Contact us to learn more about our ServiceNow ESG solution.  
We would like to hear what parts of ESG challenge your IT organization most.**



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